UNIVERSITY OF ALBERTA

EATING PATTERNS SUCCESSFUL DIETERS USE TO MAINTAIN THEIR WEIGHT LOSSES

BY

WENDY PEARL CHABOYER

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of

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The undersigned certify that they have read, and recommended to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled EATING PATTERNS SUCCESSFUL DIETERS USE TO MAINTAIN THEIR WEIGHT LOSSES by WENDY PEARL CHABOYER in partial fulfilment of the requirements for the degree of MASTER OF NURSING.

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Date August 4, 1992

Dedicated to my first teachers, my parents, Ruby and Donald Chaboyer

Abstract

More than 29,000 methods to lose and control weight have been devised yet obesity remains a common problem. Countless studies have been done on dieting yet relatively few studies have focused on what makes people successful at maintaining their weight losses. Initial research has indicated that factors such as increased exercise and lifestyle changes are influential in the maintenance of lost weight. This study was designed to explore and describe the eating patterns successful dieters used to maintain their weight losses. This research was a primary analysis of retrospective data collected on 68 successful dieters. The general question that the larger research project attempted to answer was "What are the characteristics of successful dieters?" Data were collected by an open-ended audio-taped semi-structured interview. The responses to four questions from the 68 successful dieters were analyzed by content analysis. Descriptive statistics and chi-square tests of association were performed on the demographic data and the categories emerging from the content analysis. The results from this study suggested that successful dieters were cognizant of the eating experience, that they had developed indivualized eating patterns and that they recognized that success did not demand perfection. Nurses and other health professionals should assess and promote the development of personal strategies for weight maintenance when counselling clients.

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I. INTRODUCTION

Obesity is a major public health problem, affecting more than 20 per cent of the adult populations in Canada, Britain and the United States (Millar & Stephens, 1987). Ritenbaugh (1982), labels obesity a Western culture-bound syndrome, suggesting it must be studied within the cultural context. At a National Institute of Health (NIH) Consensus Development Conference, obesity was defined as "an excess of body fat frequently resulting in a significant impairment of health (Burton, Foster, Hirsch & Van Itallie, 1985, p. 157).

Adverse effects associated with obesity identified at the NIH conference and by others include hypertension, hypercholesterolemia, non-insulin dependent diabetes, coronary heart disease, certain cancers and arthritis (Bray, 1985; Burton et al., 1985; Crepaldi et al., 1991; Dustan, 1985; Garrow, 1988; Joint National Committee, 1988; Kral, 1985; Manson, Colditz, Stampfer, Willett, Rosner, Monson, Speizer & Hennekens, 1990; Wing, Epstein, Paternostro-Bayles, Krista, Norwald & Gooding, 1988). Based upon population studies done in Canada, a body mass index (BMI), that is, the ratio of weight (kg) to height (m) sqared, of 20 to 25 is considered normal, ones from 25 to 27 are potentially at risk and those over 27 are at increasing risk of developing health problems (Health and Welfare Canada, 1988).

Numerous studies have been undertaken to identify the extent of obesity in North America. Millar and Stephens (1987), found that the prevalence of obesity in those aged 20 to 64 years in Canada and the United States was approximately 38 and 21 per cent for men and women respectively. A Canadian study found that 35 and 21 per cent of men and women aged 25 to 44 years and 54 and 45 per cent of

men and women aged 45 to 64 years of age were at health risk due to obesity based on a combination of BMI, skinfolds thickness and trunkal fat (The Well-being of Canadians, 1990). Obesity is on the rise (Harlan, Landis, Flegal, Davis & Miller, 1988; Gray, 1989; Jeffery, Folsom, Luepler, Jacobs, Gillum, Taylor & Blackburn, 1984) and there is a tendency for people to gain weight until they are into their fifties (Goldbourt & Medalie, 1974; Jeffery et al., 1984; Kannel, 1983; Ritenbaugh, 1982; Shah, Hanna, & Jeffery, 1991; Williamson, Kahn, Remington & Anda, 1990).

Although more men than women are obese (Jeffery et al., 1984), one ten year incidence study found that women regain weight twice as often as men (Williamson et al., 1990). Summarizing the research cited above, obesity is a major health risk for at least one out of every four North American adults, and is therefore an important phenomena to understand in order for treatment and support programs to be successful.

Dieting is one of several general approaches to combat obesity yet despite the billions of dollars people spend on these types of weight reduction programs their success is questionable (Brownell, 1991). As early as in 1959, Stunkard and McLaren-Hume (1959), found that only two per cent of dieters were successful in maintaining a 20 pound weight loss for two years. Twenty years later, Wing and Jeffery (1979), summarized the results of 145 research studies of the treatment of obesity between 1966 and 1977 by stating that there has been "little improvement in the clinical effectiveness of weight reduction therapy since Stunkard and McLaren-Hume's (1959), review" (p. 261).

Jeffery et al. (1984), investigated the prevalence of obesity and weight loss in a northern American state by using two major surveys of 4,200 and 2,300 subjects. They found that approximately one third of the subjects in each survey were successful dieters.

Other researchers have found that only seven of 336 subjects (2 per cent) who had wanted to lose 15 kilograms were successful one year later (Foreyt, Mitchell, Garner, Gee, Scott & Gotto, 1982). In a five-year follow-up study of behavioral treatment for obesity Stalonas, Perri and Kerzner (1984), concluded that the majority of the subjects were able to maintain their weight loss for one year but that only five out of the 36 subjects (13.8 per cent) were able to maintain their weight loss long-term (i.e. five years). Finally, more recent research revealed that 27 of 152 subjects (18 per cent) were able to maintain half of their weight loss for four to five years and that only five subjects (three per cent) maintained their goal weight for the entire time (Kramer, Jeffery, Forster & Snell, 1989). Although there is a wide variation in success rates, a significant proportion of dieters are unsuccessful in either losing weight or maintaining lost weight.

Purpose and Rationale

Obesity, a chronic condition which is associated with many health problems, has been relatively resistant to a variety of treatments. Many people can lose weight but they are often unable to maintain the losses therefore the purpose of this study was to explore and describe the eating patterns successful dieters used to maintain their weight losses.

Definition of Terms

Eating Patterns: verbal statements which describe thoughts and actions towards food and the experience of eating.

Successful Dieter: "an individual who was over a 27 BMI as an adult, deliberately lost weight to a BMI between 20 and 25 and has maintained that weight for at least one year being currently below a 25 BMI" (Brink, Wood, Ferguson, Sharma & Koop, 1990, p. 3).

II. LITERATURE REVIEW

More than 29,000 methods to help people lose weight have been devised yet obesity remains a common problem (Schroeder, 1986). Failure to lose weight and maintain those losses has been well documented but relatively few studies have focused on those who have been successful. The purpose of this chapter is to describe current literature regarding successful dieters. After various definitions of success are examined, potential characteristics of successful dieters will be considered. Finally, the research pertaining to eating patterns will be discussed.

What is a Successful Dieter

What is a successful dieter? Numerous definitions have been used. For example, Jeffery et al. (1984), assert that a successful dieter is a person who has previously had a BMI of over 27 for men and 26 for women, but presently does not. No reason is given for the gender difference in BMI nor is a time period stated as a qualifier for success. Also BMI's of 26 and 27 have been identified as potentially at risk for health problems for some segments of the population (The Well-being of Canadians, 1990). Colvin and Olson (1983), defined successful dieters as people who had lost more than 20 per cent of their body weight and maintained it for two or more years without gaining more than five pounds. Although this definition has merit, one point should be made about it. These researchers do not indicate a starting weight and a person who is normal weight to begin with and then diets to 20 per cent underweight could be classified as successful by their definition.

Somewhat between the two extremes, Brink, (1984), originally defined successful dieters as "individuals who had been 15 per cent overweight (according

to the 1983 Metropolitan Life Insurance standards), had achieved a normal weight, and had kept the weight off for one year or more without regaining more than five pounds" (p. 3). Because of discrepancies discovered in the 1983 Metropolitan Life Insurance standards, she redefined successful dieter as "an individual who was over a 27 BMI as an adult, deliberately lost weight to a BMI of 20 to 25 and maintained that weight for at least one year being currently below a 25 BMI" (Brink, Wood, Ferguson, Sharma & Koop 1990, p. 3). This new definition of successful dieters appears more congruent with existing data on health risks associated with obesity (Health and Welfare Canada, 1988; National Institute of Health, 1991). Even though some individuals who have a BMI of greater than 25 may have an excess of lean body mass rather than adipose tissue (Bray, 1976; Garrow, 1988; Manson, Stampfer, Hennekens, & Wille, 1987), use of BMI to determine obesity is recommended by many experts (Burton et al., 1985; Garrow & Webster, 1985; Keys, Fidanza, Karvanen, Kimura & Taylor, 1972; Roche, Siervogel, Chumlea & Webb, 1981; Smalley, Knerr, Kendrick Colliver & Owen, 1990

Characteristics of Successful Dieters

Many dieters are unsuccessful at losing or maintaining weight losses yet research is suggesting that up to one third of dieters may be successful (Jeffery et al., 1984). Do successful dieters have any characteristics in common?

Gender

Although obesity is prevalent in both genders, it appears to be more socially costly in women than in men (Chaiken & Pliner, 1987; Chernin, 1981; Orbach, 1978; Polivy & Herman, 1987; Rodin, Lilberstein & Streigel-Moore, 1984; White,

1991). After studying the media and attitudes of people, several researchers have asserted that women are faced with more pressure to be thin than men (Attie, & Brooks-Gunn, 1987; Chaiken & Pliner, 1987; Garner, Garfinkel, Schwartz & Thompson, 1980; Guy, Rankin & Norvell, 1980; McBride, 1988; Rodin et al. 1984; Silverstein et al., 1986; Stake & Laur, 1987; White, 1991). Women are also evaluated by their appearance more than men (Attie & Brooks-Gunn. 1987; Bar-Tal & Saxe, 1976; Lerner, Orlos & Knapp, 1976).

Chronic dieting is so prevalent in women that Rodin, Silberstein and Striegel-Moore (1984), have labeled this phenomena the "Normative Discontent of Women" (p. 267). Less is written about such a syndrome in men to date. Additionally, women are more likely than men to see themselves as fat, to worry about being fat, and to diet (Brubaker, 1988; Cash & Hicks, 1990; Drewnowski & Yee, 1987; Dwyer & Mayer, 1970; Hayes & Ross, 1987; Jeffery et al., 1984; Kristeller & Rodin, 1989; Silberstein, Striegel-Moore, Timko & Rodin, 1988; Stake & Laur, 1987; Stephenson, Levy, Sass & McGarvey, 1987). Finally, women also have a greater desire to be thin (Drewnowski & Yee, 1987; Fallon & Rozin, 1985; Silverstein, Perdue, Peterson & Kelly, 1986). Because of these gender differences, it is possible that men and women react to obesity, dieting and weight loss maintenance differently.

There is some evidence to suggest that men and women do differ with regards to weight loss and maintenance. Research on 55 male and 58 female dieters revealed several gender differences with regards to weight history and responses to treatment (Forster & Jeffery, 1986). Women reported more dieting experiences and an increased need to lose weight as compared to men and although men initially lost

more weight than women, women were more successful at maintenance of lost weight. Another study of 114 men and 38 women four to five years after a weight loss program, found that women were able to maintain their weight loss better than men (Kramer et al., 1989). A closer examination of the results revealed that on average, women maintained only 1.2 kilograms more of weight loss than men. The researchers, in stating their findings, fail to emphasize that this weight loss difference does not even approach significance.

In a qualitative study of 13 male and 41 female successful dieters, Colvin and Olson (1983), found several distinguishing gender characteristics. The men reported being motivated to begin dieting because of a critical incident with some medical basis. Their most common method of weight loss was a combination of diet and exercise. Weight was managed by a combination of vigorous exercise, better nutrition and self monitoring. For women, a single remark from some unexpected source was the most common motivating factor. Their most common method of weight loss was diet alone and management of weight was achieved by better nutrition, self monitoring and an increase in exercise. Although gender differences appear small, the reasons for beginning a diet as well as the difference between vigorous exercise and just increased exercise should be noted.

Another study of 116 women and 70 men found that the women were more concerned with dieting than the men and that the two genders had different attitudes towards food, weight, dieting and behaviors associated with eating (Kristeller & Rodin, 1989). These findings are supported by a second study which found that men and women differ on their perceptions of ideal and real weight as well as on their standards for dieting (Connor-Greene, 1988).

Age

Does age of onset of obesity or age of commencement of dieting affect success? In an already described study by Forster and Jeffery (1986), both women and men who were obese before the age of 25 lost a smaller percentage of their body weight during treatment but also regained less during the one year follow-up. Another analysis of the Minnesota Heart Health Survey found that BMI was positively related to age in both genders but that this association decreased after the fifth decade for men (Jeffery, Forster, Folsom, Luepker, Jacobs & Blackburn, 1989).

Contrary to the results obtained by Forster and Jeffery (1986), Kramer et al., (1989), found that women but not men who became obese before the age of 20 years old were more successful at both weight loss and weight maintenance four years later. The researchers used absolute weight lost and not percentage of body weight lost. They also found that age of starting treatment for obesity was not associated with success. One small study of 48 women found that success was associated with increased age of subjects (Rosenthal & Marx, 1978). Two groups of researchers found that age was not significantly associated with successful dieting for either gender (Brink, Wood & Ferguson, 1990; Stuart & Guire, 1978). Research on the effect age has on obesity and dieting is equivocal.

Marital Status and Eating Companions

In addition to gender and age, two other variables which have been examined in relation to successful weight loss and maintenance are marital status and presence or absence of a companion during meals. In a review article, Stuart (1980), cites three studies which supported the positive effects of spousal support

during dieting and weight maintenance. Two other studies have shown that eating behavior of one person is positively influenced by another (Rosenthal & Marx, 1979; Rosenthal & McSweeney, 1979). Brink, Wood and Ferguson (1990), found that marital status was significantly associated with current body mass index for men but not for women. Two large epidemiological studies of 1,000 and 3,000 husband and wife pairs found that husbands' and wives' long-term weight change were syncronized, that is, if one spouse gained weight so did the other and the same was true for weight loss (Garn, Bailey & Cole, 1978; Garn & Clark, 1976). Although there appears to be some connection between husbands' and wives' weights, it is not well established. This area warrants further investigation.

Ethnicity

The influence of ethnicity on obesity has been documented (Cronk & Roche, 1982; Garn & Clark, 1976; Rowland, 1989; Stevens et al., 1991; Stunkard, 1975), but its effect on successful weight loss has not been investigated. In a National Health Survey of 17,000 women, the proportion of obesity was significantly different for white, black and hispanic women (Dawson, 1988). With respects to dieting, the proportion of women in each group that perceived themselves overweight and were trying to diet was similar. In a qualitative study, Allan and Mayo (1991), found that white and black women perceive both their real and ideal weights differently. In one study of 88 women, the young women of different ethnic backgrounds did not differ in their satisfaction with body size but the older women did differ significantly (Craig & Caterson, 1991). Perhaps the "melting pot" effect is seen in these young women who are all striving for the same body type.

Exercise

Apparently exercise plays a major role in weight control. Numerous studies have documented the positive effects of exercise on both weight loss and maintenance (Allan, 1989; Brink, Wood & Ferguson, 1990; Brubaker, 1988; Graham, Taylor, Hovell & Siegel, 1983; Kayman, Bruvold & Stern, 1990; Marston & Criss, 1984; Miller & Sims, 1981; Van Dale, Saris & Ten Hoor, 1990). One study found that the "level of physical activity in leisure time is positively related to other aspects of lifestyle notably adherence to the Canada Food Guide, attempts to limit dietary fat, increased consumption of poultry, fruit and vegetables" (The Well-being of Canadians, 1990, p. 18). The same study also found that activity level was negatively related to both BMI and subcutaneous fat.

Socioeconomic Status

The relationship between socioeconomic status and obesity is complicated and has been of interest to many researchers (Garn, Bailey, Cole & Higgins, 1977; Garn & Clark, 1976; Goldblatt, Moore & Stunkard, 1965; Itallie, 1985; Jeffery, French, Forster & Spray, 1991; Lapidus, Bengtsson, Hallstrom & Bjorntorp, 1989). The findings in adults can be summarized as follows: "Among American adults, the relationship between socioeconomic status and fatness is curvilinear in both sexes being lowest below the poverty level, then rising, then falling again" (Garn, 1986, p. 383).

In an analysis of two National Health and Nutrition Examinations (1971-1974 and 1974-1980), Itallie (1985), found that men above the poverty level have a slightly greater prevalence of overweight at all ages than those below the poverty level whereas women under the poverty level have a much greater prevalence of

overweight than those above it. He concluded that "Multivariant analysis showed that race and poverty status are independent predictors of weight for women" (Itallie, 1985, p. 984).

A few studies have attempted to document the influence that occupation, one indicator of socioeconomic status, might have on weight. In an analysis of more than 4,200 men and women, Jeffery, et al., (1989), found that BMI was significantly related to occupation. The researchers viewed other variables such as family income and education and concluded that a curvilinear relationship existed between BMI and socioeconomic status. Koch et al. (1991), found that women in traditional jobs used eating as a coping mechanism more often than women in nontraditional jobs but the difference was marginal. Other researchers have found that occupation was not associated with successful weight loss (Brink Wood & Ferguson, 1990; Stuart & Guire, 1978).

Other measurable characteristics which are often utilized as indicators of socioeconomic status are education and income. One study found that weight loss attempts increase with higher education and income in both sexes (Stephenson et al., 1987). Analysis of 59,556 women enroled in a "Take Off Pounds Sensibly" program revealed an inverse relationship between obesity and family income (Rimm & Rimm, 1974). Another study found that the most significant difference between drop-outs and completers from a 12 week behaviorally orientated program was occupation (Kolotkin & Moore, 1983).

Eating Patterns

Obese versus Normal Weight

Research on successful dieters' maintenance eating patterns is sketchy, although numerous studies have compared the eating behavior of obese individuals to those of normal weight. Some results indicate that differences do exist (Gaul, Craighead & Mahoney, 1975; LeBow, Goldberg & Collins, 1977; Meyers & Purdel, 1972), while others have found no differences in the eating patterns of overweight and normal weight individuals (Adams, Ferguson, Stunkard & Agras, 1978; Rosenthal & Marx, 1978; Mahoney, 1975; Stunkard, Coll, Lundquist, & Meyers, 1980; Wooley, 1971; Wooley, 1972).

Many researchers have reported differences in eating patterns between obese and nonobese individuals. Meyer and Purdel (1972), performed a laboratory study in which 64 normal weight, 16 underweight and 38 overweight subjects were required to eat liquid breakfasts and suppers. They found that mean caloric intake was similar amongst the groups but that the overweight subjects had a much wider variation of caloric intake than the rest. Because this study was not in a natural setting and the subjects did not eat normal food, the significance of its findings must be questioned.

In a comparison of 34 overweight to 37 normal weight subjects, LeBow and colleagues (1977), found that the overweight subjects took fewer bites and chews and ate quicker than their normal weight counterparts. These findings supported Gaul et al.'s (1975), earlier work. Closer examination of these two pieces of research revealed that since the obese and nonobese were eating the same amount of food, although the obese took more bites, these bites must have been

smaller in size than the nonobese's bites and therefore it would be expected that fewer chews would be required. Hill and McCutcheon (1975), found that obese men ate faster and more of the types of foods that they found appealing than their normal weight counterparts.

Krassner, Brownell and Stunkard (1979), found that overweight women left significantly less on their trays after a cafeteria meal than normal weight women. The same was noted for men but the amount did not reach significance. Because the subjects had no control over how much was put on their plate, these findings must be viewed with caution.

Wing, Carrol and Jeffery (1978), utilizing repeated observations of two pairs of obese and nonobese women and men, found that the obese man cleaned his plate significantly more often than his nonobese counterpart. Although this trend was evident in women it was not statistically significant. The obese man also had second helpings more often than his nonobese counterpart. Closer analysis of this study revealed that the supposedly normal weight male was six feet tall and 132 pounds which meant that he had a BMI of 17.9 It is possible that comparing obese to underweight subjects may demonstrate significant differences in eating behavior that would not be found if normal weight subjects were used.

Other researchers have consistently found that there is no empirical support for an obese eating pattern. Mahoney (1975a), carried out a series of four seperate studies. The first viewed 20 undergraduates eating a standardized meal on two seperate occassions and found no significant correlations between obesity and total number of bites, meal duration or eating rate. This study is supported by the later work of Rosenthal and Marx (1978). In the second, 18 males were obseved while

they ate a standard meal at a restaurant, and again no differences were found between the obese and nonobese. The third study, which also found no differences between the obese and nonobese groups, asked 62 students to count their own bite frequency for one 24 hour period. Mahoney's final study in that series assessed the effect of 46 undergraduates' eating pace and expectancy on their consumption in the laboratory setting. Again, no significant differences were found.

Another researcher studied 11 ...mates fed liquid diets either high or low in calories for 15 days and also found no differences between the obese and nonobese in the amount eaten although the obese reported feeling hungrier than the nonobese (Wooley, 1971). A study of 96 obese women found that overeating and impulsive eating occurred frequently and was especially associated with snacking alone and eating lunches at restaurants and social events (Schlundt, Hill, Sbrocco, Pope-Cordle & Kasser, 1990). The research pertaining to the possibility of differentiating the obese from the normal weight by their eating patterns appears equiocal, and in fact, Mahoney (1975b), strongly argues against the existence of an obese eating style.

Successful versus Unsuccessful Dieters

There has been some research into the eating patterns of successful versus unsuccessful dieters. One study has shown that while there was no difference in eating patterns between obese and normal weight individuals, successful dieters reported a lower frequency of eating in various locations as compared to unsuccessful dieters (Rosenthal & Marx, 1978). Brubaker (1988), found that food preference and habits were the reasons for not losing weight identified by 83 of the 143 female and male subjects (58 per cent) \who weighed more than they desired.

Eating habits accounted for 21 per cent of the variance during weight loss in one study (Stalonas & Kirschembaum, 1985). Another study which compared the eating patterns of 20 successful weight loss maintainers to 28 unsuccessful weight loss maintainers one year after weight loss found that the only difference between the two groups was that the regainers ate higher calorie foods in between meals and that they ate more of these "snacks" (Leon & Chamberlain, 1973).

Another group of researchers found that eating behavior did differ between successful and unsuccessful dieters, but they concluded that the differences isolated were not adequate enough to identify those who were successful (Hartz, Kalkhoff, Rimm and McCall, 1979). These researchers go on to cite several studies which have failed to isolate differences between successful and unsuccessful dieters and conclude by suggesting that the two groups should not be compared, rather research should focus on the individual changes that have allowed people to lose and maintain weight losses.

Allan (1991; 1989), studied the process of weight management in women of various body sizes from a qualitative perspective. She found that these women used the five stage process of weight management of 1) appraising, 2) de-emphasizing, 3) mobilizing, 4) enacting, and 5) maintaining (Allan, 1991). In the enacting stage, women managed their weight by two general methods; dieting and "changing one's whole life" (p. 661). With respects to dieting, the three themes Allan identified were skipping meals, reducing intake of high-calorie foods and exercising. With respects to "changing ones whole life", new eating patterns and new life-styles were noted most frequently. She also found that the women most successful at losing weight identified self-focused reasons for beginning dieting.

The final stage termed "Maintenance" included three processes; modification of diet tactics, solidification of lifestyle changes and reversion to previous patterns. The process of modification of diet tactics included adding foods and meals. Solidifying lifestyle changes refers to the continued use of the strategies described in the enacting stage. Reversion to previous patterns involves eliminating the enacting strategies and returning to former habits. Kayman et al.'s (1990), results are similar to Allan's (1989).

Using the Dieter's Inventory of Eating Temptations scale, Schlundt and Zimering (1988), demonstrate that there is a relationship between body weight and eating patterns in 193 normal weight and 168 overweight individuals. These findings are based on the initial tool validation. These same researchers suggest that, rather than viewing differences between overweight and normal weight individuals as traits, they should be viewed as situational skills which may need to be learned or modified.

In summary, obesity has been recognized as a major health problem in North America and has been associated with several chronic illnesses. Researchers and nutrition counsellors from a variety of disciplines have sought to understand the phenomena in order to help people lose weight and maintain the losses. The factors which facilitate weight loss and maintenance have eluded researchers thus far and to date, no studies have specifically examined the eating patterns successful dieters use to maintain their weight losses.

III: METHODS

This research is a primary analysis of a retrospective data set. The original study was a cross-sectional exploratory descriptive design utilizing a semi-structured, open-ended interview guide (Brink, 1984). The interviews took place at either the subjects' homes or at the research office and lasted on the average of one to one and one half hours each. Primary analysis was performed on a subset of the original data set.

Target Population

The target population for the original study included dieters living in or near Iowa City, U.S.A. The researcher planned to include 100 successful dieters and a contrast group of 20 unsuccessful dieters. Criteria for inclusion were: ability to speak and understand English, living in Iowa City, Cedar Rapids or the surrounding area, over the age of 21 years and a successful dieter. In recruiting the sample, successful dieters were defined as individuals who had been at least 15 per cent overweight (according to the 1983 Metropolitan Life Insurance standards), had achieved a normal weight, and had kept the weight off for one year or more without regaining more than five pounds" (Brink, 1984, p. 30.)

Iowa City is a university town, Cedar Rapids is predominantly a blue collar working city and the surrounding area is, for the most part, made up of small farms. Iowa City is comprised of approximately 97 per cent Whites, one per cent Blacks and the rest unaccounted. Cedar Rapids and the surrounding area is made up of 98 per cent Whites, one per cent Blacks and almost one per cent Spanish (1980 census tract data for Iowa as cited in Brink, 1984). Some minority groups were underrepresented due to the homogeneity of the target population. During

data cleaning and analysis successful dieters were redefined as "an individual who was over a 27 BMI as an adult, deliberately lost weight to a BMI between 20 and 25 and has maintained that weight for at least one year being currently below a 25 BMI" (Brink, Wood, Ferguson, Sharma & Koop, 1990, p. 3). Utilizing this new definition, the sample of the original study consisted of 162 subjects, 87 women and 75 men. There were 68 successful (40 women and 28 men), 82 unsuccessful (38 women and 44 men), and 12 normal weight (9 women and 3 men) dieters.

Sample

The original sample of 162 dieters was selected nonrandomly via volunteer and network sampling. The project team served as the network in Iowa City and diet centers fulfilled this role in Cedar Rapids. Advertisements were placed in three papers, the Iowa City Press Citizen, the Cedar Rapids Gazette and the University of Iowa Students' Newspaper. Notices were posted throughout the cities describing the research and the need for subjects. One member of the research team was also interviewed on the local radio and television stations; potential subjects called the university and volunteered. Based on the definition of successful dieters, from the original sample, the subsample of 68 successful dieters became the sample for this present study.

Data Collection

The original study, which was first pilot tested, consisted of audiotaped interviews lasting approximately one to one and one half hours. Subjects were interviewed only once. Subjects were asked 68 semi-structured open-ended questions by an interviewer. Questions were arrived at from the literature and from the pilot study. The questions centered around six broad categories including: (a)

How people lost weight and kept it off, (b) family history, (c) childhood history of obesity and nutrition, (d) last successful weight reduction program (e) description of the subject's life today, and (f) any evidence of present eating disorders .

The interviewer was trained by one of the investigators. The training process involved: (a) review and discussion of the questions, (b) twice weekly meetings to review the interviews and discuss any problems, and finally (c) the researcher either listened to the tapes or reviewed the transcripts of the first several interviews.

Subjects were weighed and the interviewer noted the time of day and the amount of clothing worn by the subject. The scale was calibrated prior to each weighing. Height was established by self-reports. Subjects were asked their height (without shoes) on two seperate occasions, first during the screening interview and second during the study interview. The correlation between these two stated heights was .951 suggesting that the subjects were consistent in their reports of heights. Other large scale studies have found a correlation of 0.9 or better for self-reported and measured heights (Kristeller & Rodin, 1989; Pipie, Jacobs, Jeffery & Hannan, 1981; Stewart, Jackson, Ford, & Beaglehole, 1987; Wing, Epstein Ossip & LaPorte, 1978). BMI, also termed the Quetelet's index after its original founder (Garrow, 1988; Keys et al., 1972), was calculated by taking the ratio of weight (in kilograms) to height squared (in meters).

Four interview questions and answers from the 68 successful dieters were used in order to answer the research question: What are the eating patterns successful dieters use to maintain their weight losses? The specific interview questions used were: 1) Can you describe your eating and drinking patterns now?;

2) Do you have a tendency to eat everything you are served and is this different from before?; 3) Are there foods you do not allow yourself to eat?; 4) What happens or how do you feel when you overeat now?

Reliability and Validity

Reliability and validity of the study will be discussed in relation to the questions, the answers and the interviewer utilizing a pragmatic approach. "In the pragmatic approach to validity, the interest is in the usefulness of the measuring instrument as an indicator or a predictor of some specific behavior or characteristic of the individual" (Selltiz et al., 1976, p. 171).

The questions had face validity. The interviewer's questioning technique and the answers were examined and were found to have face validity. Content validity of the questions was established in two ways prior to the original study. First, the questions were based upon the literature. Second, the questions were tested in a pilot study. The questions asked did generate answers that relate to the area of interest, that is they "fit" the question. Although some of the questions can be answered by "yes" or "no", generally they have not been. It has been noted that "In asking about present or past behavior, experience has demonstrated that the most valid answers are obtained by specific rather than general questions" (Selltiz et al., 1976, p. 307). The number of yes or no responses to each question was counted and reported.

Content validity of the answers was ensured by members of the thesis committe who reviewed either the answers and/or the content analysis findings. To strengthen concurrent validity, verbal reports of weight loss was verified by either old clothing or old photographs.

A number of rules were used to establish that the interviewer asked the same question to each of the subjects. Probes may have influenced responses therefore only answers given prior to any leading probes used by the interviewer were analyzed. If the interviewer changed the wording of the questions but retained the meaning then the responses were retained and analyzed. If there were any doubts about this then one member of the judge panel was consulted and a decision was made regarding whether to analyze or disregard the data.

Data Analyses

Data analyses was done in five phases including 1) content analysis, 2) descriptive summaries, 3) cross-tabulations and Chi-square Tests of Association of the demographics and content analysis categories, 4) cross-tabulations of the categories from the four questions, and 5) fundamental theme identification.

The first phase involved content analysis (Krippendorff, 1980). Each question was analyzed seperately. First, the transcripts were read in their entireness, question by question. Leading probes used by the interviewer and subsequent responses made by subjects were noted. One member of the thesis committee was consulted to determine the most appropriate method of handling each of the leading probes and responses. It was decided that because the probes themselves may have influenced the responses, the responses were not analyzed. Once the transcripts had been cleaned in this manner, key phrases were isolated. These key phrases were then grouped into mutually exclusive subcategories and then combined into categories. The transcripts were then coded by giving each phrase a number corresponding to the category and subcategory it had been placed into (Brink & Wood, 1988). All interrater and intrarater reliability is reported as

percentages of agreement and was done seperately for each interview question. Interrater reliability of coding ranged from 0.85 to 0.96 whereas intrarater reliability ranged from 0.93 to 0.98.

Data entry sheets for computer entry were then filled out and the data was entered into the computer. Intrarater reliability for filling out the data entry sheets ranged from 0.97 to 1.0 for the four questions. Data entry was verified by entering all of the data a second time into the computer. Any discrepancies in entry were rechecked and changes made.

The second phase involved descriptive summaries of both the demographic data and data categories utilizing the SPSSx program (Norusis, 1988). Frequencies of the categories and subcategories were run.

The third phase included cross-tabulations and Chi-square tests of Association (Glass & Hopkins, 1984). Both of these procedures were performed on the categories derived from the content analysis and various demographic data.

The fourth phase of data analysis involved an examination for homogeneity of answers. Homogeneity is "the extent to which individuals' responses to the various items or other components of a measure are consistent" (Selltiz, Wrightsman & Cook, 1976, p. 183). This was accomplished objectively. Chi-square tests of association were performed on the categories from the four different questions and significant findings were reported. For example, the subjects who described strategies to control eating in the first question and those who described strategies to control eating in the second question were examined for a statistical association. Other chi-square tests of association among the categories for the four questions were performed and are reported later in this thesis.

The final phase involved examining the categories from the four questions as a whole. Fundamental themes which were suggested by the data were identified. These fundamental themes were then explicated and described.

Face validity of the categories was achieved by defining and describing the boundaries for each category. Content validity of the content analysis was ensured by the use of a three person judge panel. One member reviewed the content analysis process, the resultant subcategories and categories and the fundamental themes that arose. The other two members reviewed the categories and subcategories that emerged from the analysis.

Protection of Human Rights

Subjects volunteered for the study. Potential subjects were given an information summary before the informed consent was signed. Subjects could end the interview or request to have the audiotape stopped at any time. They could also refuse to answer any questions. Subjects had the right to ask questions at any time.

The researchers protected the anonymity of the subjects by transcribing all data by code numbers. The only identifying information on the data was the code number. The interview tapes and transcribed notes continue to be kept in a locked room and the tapes will be destroyed five years after the study's completion. The consent forms and identifying data of each subject were kept separate to the transcriptions and were not available to this researcher. Only grouped demographic data was available to this researcher. The original study passed ethical clearance and is reviewed yearly while it is ongoing.

Potential risks to the subjects were not anticipated because the data had already been collected. No additional time was requested from the subjects. There

may not be any direct benefits to the subjects other than the fact that these results may help future dieters in their quest to maintain lost weight. Publications that result from this analysis will not identify statements made by subjects with any descriptions of the subjects. Ethical approval has been obtained from the Faculty of Nursing Ethics Review Committee of the University of Alberta.

IV: FINDINGS

The guiding research question, "What are the eating patterns successful dieters use to maintain their weight loss?" was answered through the content analysis of four interview questions. The interview questions were:

1) Can you describe your eating and drinking patterns now?
2) Do you have a tendency to eat everything you are served and is this different from before?
3) Are there foods you don't allow yourself to eat?
4) What happens or how do you feel when you overeat now?

This chapter will present a description of the sample, the content analysis findings and the quantified results from the four interview questions.

Description of the Sample

This study was a primary analysis of data collected on a subsample of 68 successful dieters within a larger data set of 162 successful, unsuccessful and normal weight dieters. For the purpose of this research, a successful dieter was defined as "an individual who was over a 27 BMI as an adult, deliberately lost weight to a BMI between 20 and 25 and has maintained that weight for at least one year, being currently below a 25 BMI" (Brink, et al., 1990, p.3). Sixty eight subjects from the original research fit this definition and became the sample for this research. To reiterate, all subjects in this sample presently had a BMI of 20 to 25. Characteristics of the successful dieters which will be described include: i) gender, ii) age, iii) ethnicity, iv) occupation, v) marital status, vi) living arrangements, vii) maximum BMI, viii) age at maximum BMI, ix) amount of weight loss, x) length of

time to lose weight, xi) length of time maintained weight loss, and xii) frequency of dieting at present. These sample characteristics are shown in Table 1.

The sample of 68 successful dieters was comprised of 40 women and 28 men. Their age range was from 23 to 81 years. In order to describe the ages of the subjects more comprehensively, Table 1 displays the age ranges of the subjects in ten year increments. There were 22 women and 7 men who were 40 years of age or younger and 18 women and 21 men over the age of 40. Subsequent statistical analyses utilized the two age categories of 40 years and younger and over the 40 years in order that the statistical test requirements were met. Chi-square tests of association showed that significantly fewer men than women were 40 years of age or younger (chi-sq=4.89, df=1 p=0.03).

The majority of the sample were of European or British descent. Five of the subjects had a Scandinavian heritage and six were from other ethnic backgrounds.

The occupations of the subjects were grouped into four categories. Blue collar workers were defined as manual labourers, farmers, private household workers, etc. White collar workers included office workers (excluding managers), sales persons, clerical staff, etc. Managers, executives and professionals were classified as professionals. Those who were retired or were housewives were considered not employed. Although more men than women were in white collar positions, the genders were fairly equally represented in the professional category. More women than men were not employed. Data is missing from one subject.

Over three quarters of the sample were married at the time of the interview. One subject's marital status was unknown. When asked about their living

arrangements, six women and two men stated that they were living alone, all others lived with other people.

The sample's maximum BMI was calculated using the subjects' stated height and maximum adult weight. The men's maximum BMI ranged from 28 to 39 and the women's maximum BMI ranged from 28 to 54. The age at which the subjects were at their maximum weight was known for 63 subjects. The majority of the women were heaviest at the age of 30 years or younger whereas most men were heaviest between the ages of 31 to 50 a statistically significant result. Only a few of the women and men were heaviest after the age of 50 years. Two seperate categorisations of age at maximum weight were utilized for statistical analysis. The first was 30 years or younger, 31 to 50 years and 51 years or older. When there were too few subjects in several of the cells the subjects were recategorized into 40 years and younger and 41 years and older, the second categorization. There were 28 women and 20 men 40 years or younger and 10 women and 5 men 41 years and older. Data is missing for two women and three men.

Men lost from 8 to 49 kilograms of weight and women from 9 to 83 kilograms. Thirty three per cent of the women and thirty nine per cent of the men lost 20 kilograms of weight or less. Forty three per cent of the women and fifty four per cent of the men lost between 21 and 40 kilograms of weight. Just over 20 per cent of the women and just under 10 per cent of the men lost more than 40 kilograms of weight. There were no statistically significant weight loss differences between the women and the men. The above stated categorisation for amount of weight lost was used in subsequent statistical analysis.

It took the majority of the women more than one year to lose their weight. Just over one quarter (28 per cent) of the women took six to twelve months to lose their weight. Only a small percentage of the women lost their weight in less than six months. In contrast, the length of time it took the men to lose their weight was fairly evenly distributed among the three categories of less than six months, six to twelve months and greater than one year. This difference between the women and men was not statistically significant although data was missing for 15 subjects.

Almost 30 per cent of the men and 20 per cent of the women had maintained their weight loss for over five years. One third of the women and just under one quarter of the men had maintained their losses for greater than two but less than five years and thirteen per cent of the women and seven per cent of the men had maintained their weight loss for one year. There was no statistical difference between the women and men in terms of length of time weight loss was maintained. This data was missing for four men and three women.

At least 45 per cent of both women and men stated that they dieted always or often. Approximately 20 per cent of both genders sometimes went on diets and 25 per cent of the women and 29 per cent of the men rarely or never dieted. Six subjects did not state how often they dieted.

Several summary statements regarding the sample's characteristics can be made. Subjects represented a broad range of ages. More women than men volunteered for this study. These successful dieters had lost anywhere from eight to 83 kilograms of weight and have maintained their losses from at least one year to more than five years.

Table 1: Sample Characteristics

Characteristic	Value	Women n (%)	Men n (%)	Total n (%)	Missing n (%)
Age	20-29	8 (20)	2 (7)	10 (15)	
	30-39	14 (35)	5 (18)	19 (28)	
	40-49	7 (18)	11 (39)	18(26)	
	50-59	5 (13)	5 (18)	10 (15)	
	60 and older	6 (15)	5 (18)	11 (16)	0 (0)
Ethnicity	European	18 (45)	10 (36)	28 (41)	
	British	15 (38)	14 (50)	29 (43)	
	Scandinavian	4 (10)	1 (4)	5 (7)	
	Other	3 (8)	3 (11)	6 (9)	0 (0)
Occupation	Blue Collar	0 (0)	2 (7)	2 (3)	
	White Collar	11 (28)	5 (18)	16 (24)	
	Professional	17 (43)	18 (64)	35 (51)	
	Not Employed	12 (30)	3 (11)	15 (22)	0 (0)
Marital Status	Married	28 (70)	24 (86)	53 (78)	
	Single	12 (30)	3 (11)	15 (22)	0 (0)

Table 1 Continued: Sample Characteristics

Characteristic	Value	Women	Men	Total	Missing
Accomodations	With Others	34 (85)	26 (93)	60 (88)	
	Alone	6 (15)	2 (7)	8 (12)	0 (0)
Maximum BMI	28-32	20 (50)	18 (64)	38 (56)	
	33-45	18 (45)	10 (36)	28 (41)	
	46 and greater	2 (5)	0 (0)	2 (3)	0 (0)
Age at Maximum BMI	30 or younger	23 (58)	9 (32)	32 (47)	
	31-50	8 (20)	14 (50)	22 (32)	
	51 and older	7 (18)	2 (7)	9 (13)	5 (7)
	40 and younger	28 (70)	20 (71)	48 (71)	
	41 and older	10 (25)	5 (18)	15 (22)	5 (7)
Weight lost (kg)	20 and less	13 (33)	11 (39)	24 (35)	
	21-40	17 (43)	15 (54)	32 (47)	
	41 and more	9 (23)	2 (7)	11 (16)	1 (1)

Table 1 Continued: Sample Characteristics

Characteristic	Value	Women	Men	Total	Missing
Length of Time to Lose Weight	Under 6 months	4 (10)	6 (21)	10 (15)	
	6-12 months	11 (28)	9 (32)	20 (29)	
	Over 12 months	15 (38)	8 (29)	23 (34)	15 (22)
Maintained Weight loss	1 year	8 (20)	6 (21)	14 (21)	
	>1 to 2 years	10 (25)	8 (29)	18 (26)	
	>2 to 5 years	14 (35)	6 (21)	20 (29)	
	> 5 years	8 (20)	8 (29)	16 (24)	0 (0)
How Often Diets	Rare/Never	10 (25)	8 (29)	18 (26)	
	Sometimes	8 (20)	6 (21)	14 (21)	
	Often/Always	18 (45)	13 (46)	31 (46)	5 (7)
Total		40 (59)	28 (41)	68 (100)	0 (0)

Content Analysis Findings

Content analysis resulted in several categories of responses to each of the four interview questions. Quantification of the qualitative findings resulted in frequency of responses and subsequent chi-square tests of association. The findings will be discussed seperately for each question in the order that the questions appeared earlier in this chapter. The findings will be presented in the following format. First, the content analysis results for each question will be described. Second, the fundamental themes which emerged as a result of the overall content analysis process will be discussed. Third and finally, the findings from the tests of association will be stated.

Question 1: Eating and Drinking Patterns

The first interview question was "Can you describe your eating and drinking patterns now?" Fifty four successful dieters (87 per cent of the sample), 34 women and 20 men responded to the question. Subjects' responses were grouped according to similar statements and these categories were then labeled. The categories were then regrouped into three domains, a) eating patterns, b) non-alcoholic drinking patterns and c) alcoholic drinking patterns. The categories which are subsumed under these three headings can be found in Figure 1. Each of these domains of answers will be described in terms of categories of responses, frequency of responses, subcategories and examples.

A) Eating Patterns

The content analysis findings which were included within the domain of eating patterns contained 9 categories of responses. These responses were: 1) diet regime, 2) nutritional awareness, 3) strategies to control eating, 4) problematic

eating behavior, 5) meal schedule, 6) food description, 7) timing, 8) food preparation, and 9) miscellaneous (see Figure 2). Several of the categories that emerged contributed more than others to answering the research questions. Figure 2 describes the categories within the domain of eating patterns and Table 2 outlines the percentage and numbers of subjects divided by gender who mentioned each category. Each category will be discussed in turn.

Table 2: Eating Patterns (n=54)

Category	Females n (%)	Males n (%)	Total n (%)
Diet Regime	24 (71)	13 (65)	37 (69)
Nutritional Awareness	10 (29)	6 (30)	16 (30)
Strategies to Control Eating	8 (23)	4 (20)	12 (212)
Problematic Eating Behavior	7 (21)	5 (25)	12 (22)
Meal Schedule	19 (56)	4 (20)	23 (43)
Food Description	10 (29)	6 (30)	16 (30)
Food Preparation	9 (27)	2 (10)	11 (20)
Miscellaneous	13 (38)	9 (45)	22 (41)

Figure 1: Eating and Drinking Patterns

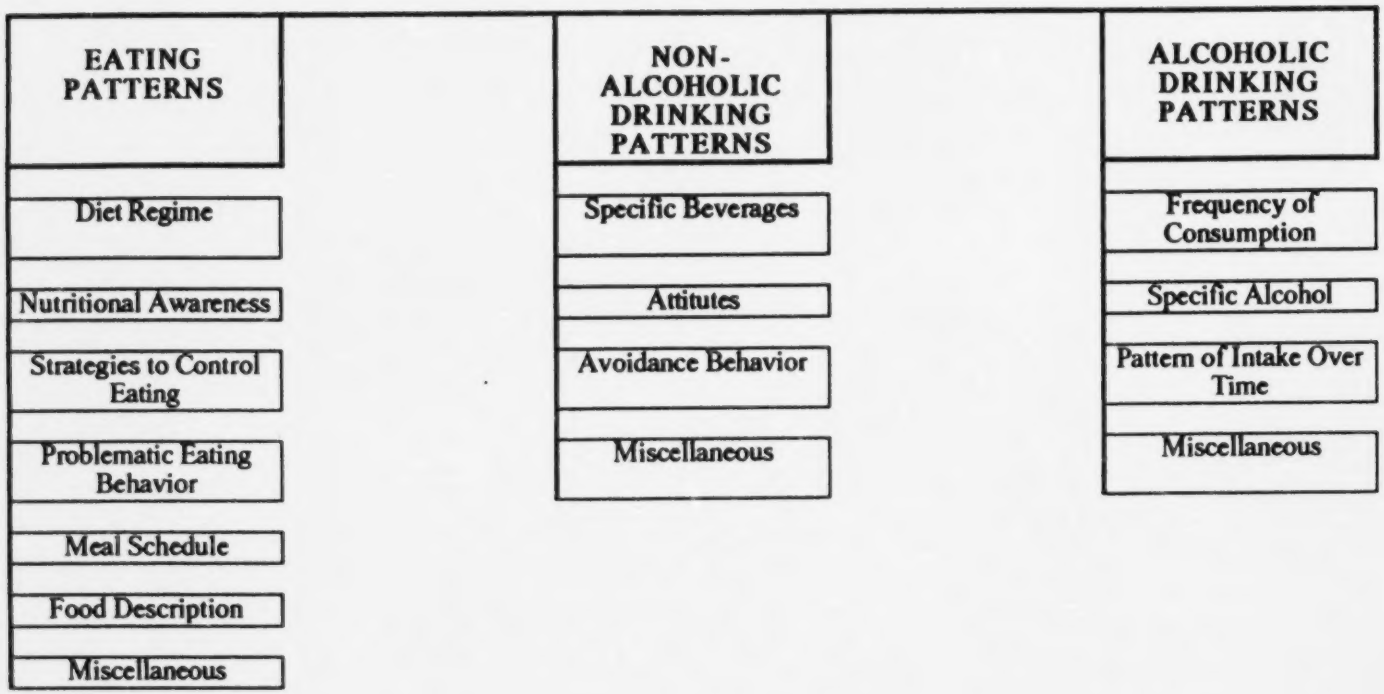


Figure 2: Eating patterns

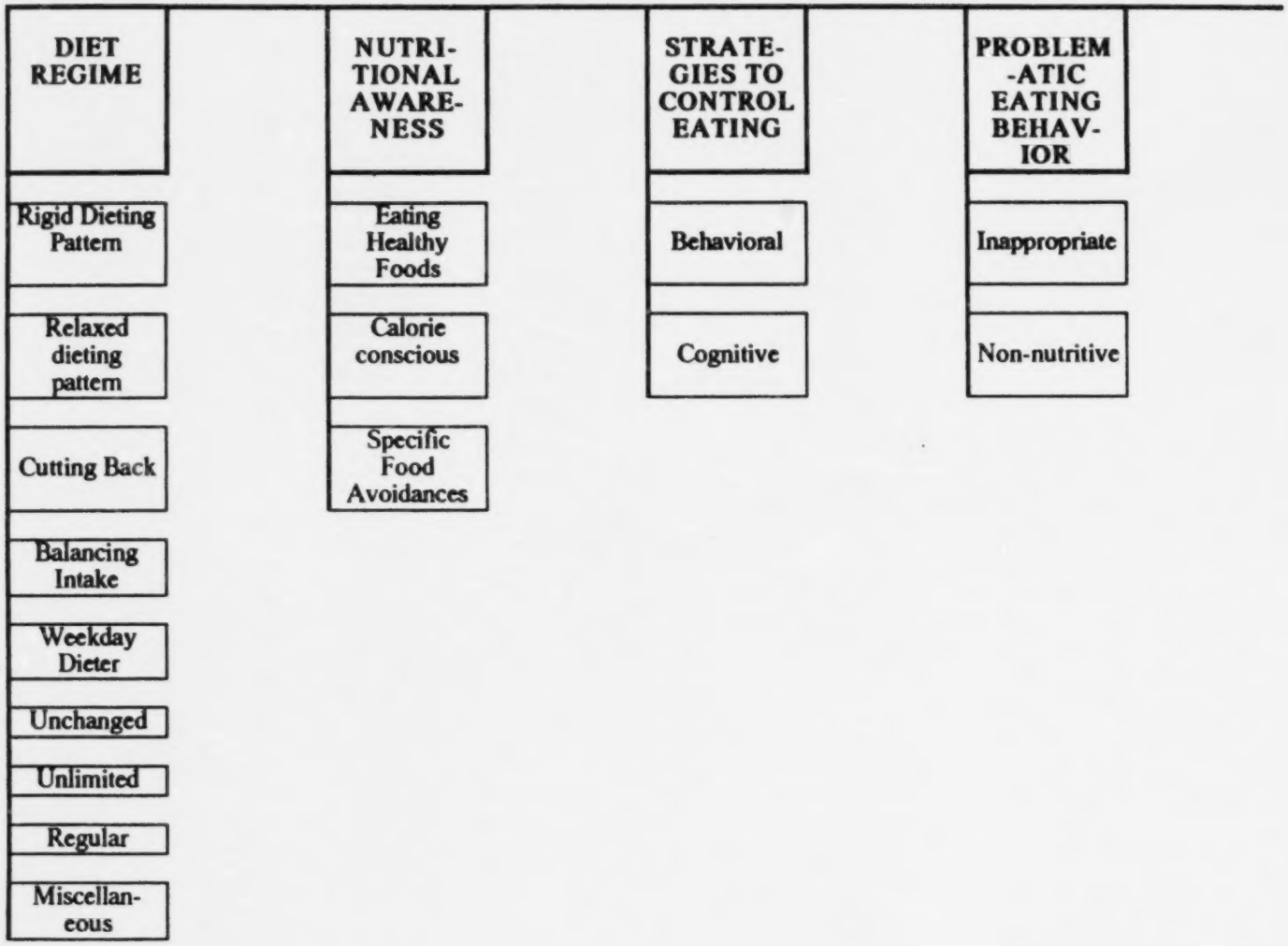
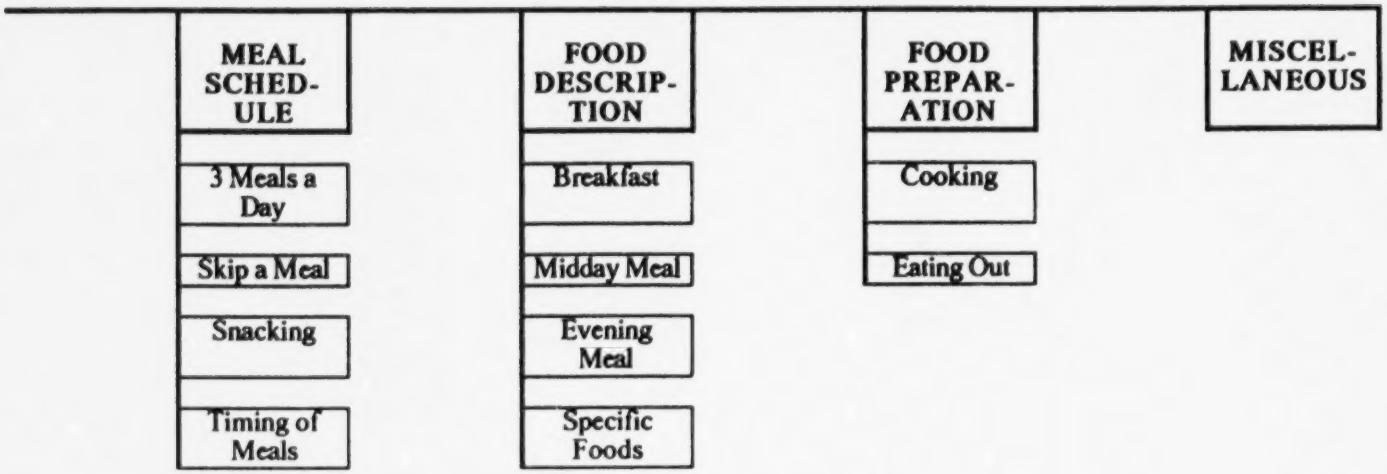


Figure 2 Continued: Eating Patterns



Diet Regime

A number of subjects made responses which exhibited self-awareness of their eating routine. This first category was then labeled diet regime. It described the general dietary pattern presently used by the subjects. Subjects mentioned these habits or regimes in terms of what they had eaten previously or in terms of what they perceived others to be eating. Some responses suggested that the subjects were still following some sort of a restricted diet while others did not. Diet regime was the most popular category of responses to the first interview question. In fact, 71 per cent (n=24) of the women and 65 per cent (n=13) of the men contributed to this category. The category, diet regime represented nine subcategories; i) rigid dieting pattern, ii) relaxed dieting pattern, iii) cutting back, iv) balancing intake, v) description of specific differences between weekday and weekend eating, vi) eating pattern unchanged, vii) unlimited eating pattern, viii) consistent eating pattern, and ix) a regular or normal eating pattern (see Figure 2).

A number of responses suggested that a group of subjects were on a strict reducing diet at the time of the interview. This subcategory was subsequently labeled **rigid dieting pattern**. The statement "I weigh everything, every piece of meat, every carbohydrate, potato, everything. Before I cook it I weigh it," was classified within the subcategory rigid dieting pattern. Another comment which was placed in this subcategory was "I always subscribe to Weight Watchers magazine so I still look at the seven day plan in each monthly issue. While I don't follow it to the regiment [sic] I check it all out and see what I can have and what I can't."

Another group of responses suggested that the subjects were still following some dieting guidelines but were eating greater amounts of food than previously. This second subcategory was labeled **relaxed dieting pattern**. Comments such as "My eating patterns are similar to when I was losing weight, it's just that I eat more to maintain my weight," and "As a maintenance person I probably play the odds a little bit more than I did as a losing person," were typical of this subcategory.

When subjects described eating less of the foods they normally ate, their comments were labelled, **cutting back**. One response was, "I'm still eating everything I ate before, just less of it." Another was, "I would say I eat smaller portions."

Balancing intake, a fourth subcategory described subjects' use of trade-offs. The notion that if I eat 'x' I won't eat 'y' was central to this subcategory. One subject commented, "I try to plan, if I'm going to have a snack, I try to leave enough leeway in my intake to know I can have a particular snack and not have a problem from the calorie standpoint."

A fifth group of responses described subjects who adhered to diets Monday to Friday but went off them on weekends. This subcategory was labeled **weekday dieter**. Remarks such as, "On the weekends is when I eat too much," and "On the weekends pretty much let myself do whatever I want to do," were included in this subcategory.

These first five subcategories suggested that some of the subjects remained on some sort of restricted diet. Subsequent statistical analysis combined these first

five subcategories into one larger group labeled dieting pattern and it became one variable used in the tests of association.

Several subjects commented that their eating had not changed. This sixth subcategory was termed **unchanged eating pattern**. Because subjects did not elaborate further on their comments in this area, it was impossible to determine what the unchanged statement pertained to. The remarks, "I eat virtually everything I ate in the past," and "Not very different from before," were typical of this subcategory.

An **unlimited diet pattern** was a seventh subcategory. Subjects described eating whatever they wanted and never going hungry. Two comments were "I'm eating on demand," and "When I feel like eating, I eat."

Subjects who described their eating as normal or regular were placed in an eighth subcategory, **regular dieting pattern**. Responses such as, "I eat what a normal person does," and "I feel my eating is just average," fit in this subcategory. Because subjects did not elaborate on what they meant by average or normal, no further analysis could be undertaken.

The final subcategory, **miscellaneous**, included a variety of responses with regard to diet regime which did not lend themselves to further subcategorization. Subjects mentioned "My eating doesn't vary much," and "I'm careful when I'm at home."

Nutritional Awareness

The second category to arise from the analysis of the first question in terms of eating patterns was nutritional awareness. Subjects' descriptions of their eating practices demonstrated a knowledge of the nutritional value of foods. Almost one

third of the sample's answers or 16 subjects demonstrated this knowledge. The percentage of both genders in this category was similar; 29 per cent (n=10) of the women and 30 per cent (n=6) of the men mentioned this category. Three subcategories: i) eating healthy foods, ii) calorie conscious and iii) food avoidances were included in this category (see Figure 2).

The first subcategory, termed **eating healthy foods**, included subjects' general descriptions of eating nutritious foods. One subject stated, "I eat kind of a balanced diet of meat, and vegetables and cheese." Another said "I eat I think [sic] balanced meals."

Calorie conscious, a second subcategory described responses which included reference to the caloric value of foods that were consumed. Comments such as, "I don't eat sweets unless they're Weight Watcher's brand," or "I'm just a little more conscious about the calories I'm taking in," were included in this subcategory.

A third subcategory, **specific food avoidances** described foods that subjects did not allow themselves to eat. The foods mentioned tended to be ones which were poor in nutritional value, that is foods which were high in calories and low in other nutrients. One subject stated "It's simple. I don't eat any sweets or refined starches," while another said, "Cutting out the fats and things."

Strategies to Control Eating

Strategies to control eating emerged as a third category of responses. Conscious planning and/or careful methods to limit the amount of food eaten distinguished this category from the others. Strategies to control eating was discussed by 22 per cent of those asked the question (8 women and 4 men). The

percentage of women and men who described these strategies was comparable. Two subcategories, i) behavioral strategies and ii) cognitive strategies were included in this category (see Figure 2).

Behavioral strategies, the first subcategory, described several specific ways subjects acted when in eating situations. Their actions were directed towards limiting the amount or type of foods eaten. Comments such as, "If I'm at home I just try not to put much on my plate and I don't like to go to these all you can eat places," and "I try to force myself to leave some food, particularly in a restaurant setting just to condition myself to do that," were typical of behavioral strategies. Other responses were: "A lot of times here at home we don't serve family style, we dish it up onto the plates ahead of time", "I've learned to eat slower and that helps me to feel fuller," and "Somedays I feel like I could eat more and I just get up and leave the table."

Utilizing knowledge gained from some source or other to control eating was labeled **cognitive strategies**, the second subcategory. Subjects often used self-talk to prevent themselves from overeating. One subject said "If I'm hungry I say wait a minute, am I just thinking I feel hungry or am I really hungry because I burned everything up?" Another commented "One of the things I've tried to practice is asking myself am I full? If I'm full then I should quit and leave the rest whether I want to or not." Yet another stated "There are times when I'm tempted, if there's something left, one pork chop or something like that but I just don't do it because I know what it could lead into. It's just more or less a mental thing right now."

Problematic Eating Behavior

The fourth category of responses to emerge from the question "Can you describe your eating and drinking patterns now?" was problematic eating behavior. This category was comprised of specific behaviors which could be considered unhealthy eating and potentially lead to a weight increase. Twenty one per cent (n=7) of the women and 25 per cent (n=5) of the men described problematic eating behavior. Problematic eating behavior contained two subcategories; i) inappropriate eating and ii) non-nutritive eating (see Figure 2).

The first subcategory was termed **inappropriate eating behavior** because the behaviors described by the subjects involved eating in ways incongruent with generally accepted weight loss programs. These inappropriate eating behaviors included eating too quickly, eating too much, eating at inappropriate times such as eating meals late in the evening and eating the "wrong food," that is, foods high in calories but relatively lacking in nutritional value. Statements such as "If I go out to eat and all this good food is there, I'm generally going to eat it, even if I'm full." and "I still have favorite foods that I like to eat a lot and I eat more of them than I should."

When subjects' described eating as a reward, as an indulgence, as a social experience, or as a novelty, their comments were categorized as **non-nutritive eating**. Subjects appeared to be eating for some reason other than hunger. Specific remarks made were "I know that I can have a treat once in a while," and "You have to let yourself splurge sometimes."

Meal Schedule

The fifth category to emerge was meal schedule. A description of the number and timing of meals and snacks eaten were included in this category. Meal schedule was mentioned by just over 40 per cent of those asked the question. Although only one fifth (n=4) of the men commented on this category, over one half (n=19) of the women mentioned their meal schedule. Four subcategories including i) three meals a day, ii) skipping meals, iii) snacking and iv) timing of meals were subsumed under this category (see Figure 2).

The subcategory, **three meals a day**, describes subjects who stated just that. For example, "I eat three meals a day," and "I don't skip meals," were typical responses in this subcategory.

When subjects mentioned that they didn't eat a specific meal or didn't eat before noon or some other response that indicated they did not eat three meals a day, they were considered to have **skipped a meal**, the second subcategory. One subject said "I still don't eat breakfast," and another stated "I don't eat lunch."

Snacking, the third subcategory of meal schedule, encompassed general statements regarding snacking habits but not descriptions of specific snacks. Responses such as "Some days I'll snack in between meals," and "I eat snacks," were typical of this subcategory.

The fourth subcategory included comments regarding the time of day that subjects ate specific meals and was labeled **timing of meals**. One person said "At about eleven thirty I'm hungry so I eat dinner about then and I have supper about five or six." Another remarked "We eat at five o'clock."

Food Description

A description of the foods eaten was the sixth category to emerge from the question "Can you describe your eating and drinking patterns now?" Several subjects simply listed specific foods they consumed at meals. Almost one third of the subjects who were asked the question described the food they consumed at meals. Women and men resembled each other in this category. Twenty nine per cent (n=10) of the women and thirty per cent (n=6) of the men described the food they ate. The subcategories of responses which were included in this category were: i) description of breakfast, ii) description of the midday meal, iii) description of the evening meal, and iv) description of specific foods (see Figure 2).

Some subjects made statements like "I get up in the morning and my breakfast will consist of, at least three days a week, of oatmeal and toast with jelly on it," and "I have a piece of fruit for breakfast, day in and day out." These comments were classified as a **description of breakfast**, the first subcategory.

Likewise the **description of the midday meal**, the second subcategory, included responses which outlined typical lunches. One man stated "If I want to bring a couple of pieces of chicken from home I'll bring that, if my wife happened to have stew, I'll bring that for lunch." Another man said "Lunch is always a bowl of soup and normally a ham sandwich." A third man remarked "At noon it's just a light sandwich with lettuce and a small amount of meat on it and a piece of fruit, apple or banana and part of a diet pop."

The third subcategory was a **description of the evening meal**. Similar to the other subcategories, subjects gave vivid descriptions of their evening meals. Comments such as "My evening meal is usually meat and potatoes, something like

that," and "A lot of the times I'll eat one of those frozen entrees for supper and then I'll have celery. Sometimes we'll have a lettuce salad and some kind of fruit or vegetable," were made.

Several subjects described specific foods they ate without any reference to when they might eat them. This **description of specific foods** became the fourth subcategory. One subject said "I'll eat french fries." Another stated "I eat butter every day."

Food Preparation

Some subjects gave general accounts of how their meals were prepared, distinguishing characteristic of the seventh category. Of those asked the question, over one quarter (n=9) of the women but only one tenth (n=2) of the men described how they prepared their food. Meal preparation was comprised of two subcategories, i) cooking and ii) eating out (see Figure 2).

Cooking, the first subcategory of meal preparation, described how subjects prepared their own meals. For example, one woman said "A lot of times we will grill something for supper," and another one stated "I make sure that I make my meals."

Several subjects commented that they either did not prepare their own meals or that they ate at restaurants. **Eating out** became the second subcategory of food preparation. Two remarks in this subcategory were "I do eat out a fair amount." and "it's either fast food or pizza."

Miscellaneous

The final category in the group of eating patterns was termed miscellaneous. Responses in this category did not fit with any others. For example, "I think the

biggest surprise is I'm very comfortable. I eat virtually everything I ate in the past," "It took a period of time after that two and a half years before I was comfortable eating lunch. I'd sit down and try to eat lunch and I just didn't feel right eating," and "I don't want to go on a diet ever again" were some of the responses in the miscellaneous category. Forty one per cent of the subjects who were asked this question made comments that did not fit with any others and were therefore classified as miscellaneous. Thirty eight per cent (n=13) of the women and 45 per cent (n=9) of the men made comments classified as miscellaneous.

Summary

The analyses of the first domain of categories, eating patterns, suggests that successful dieters have developed individual and variable eating patterns. The majority of them are aware of their dietary regime. Some people continued to think of themselves as dieting even though they had maintained their weight loss for one year. Others went back to their previous eating patterns. Several successful dieters have developed strategies to control their eating, suggesting that they had overcome their tendency to overeat or their tendency to eat the wrong foods. Some people skipped meals while others were conscientious about eating three meals a day. A few people actually described typical meals, timing of those meals or even the preparation of the meals, three categories which did not appear to contribute significantly to an understanding of how successful dieters maintain their weight.

The fact that people identified a diet regime, nutritional awareness and strategies to control eating suggests that a large proportion of the sample remained cognizant or aware of what foods and how much of them they were eating, even after they had maintained their weight losses for one year. The array of responses

to the question, as evidenced by the diversity of the eight categories which emerged also attest to the fact that these people had very individual notions of what the question itself was asking and answered it according to their own perceptions.

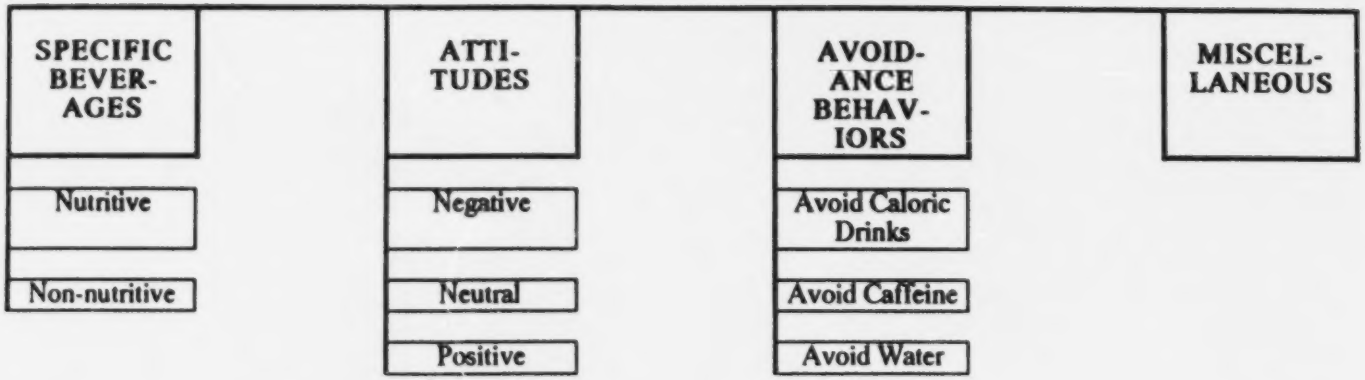
Nonalcoholic Drinking Patterns

The second domain of categories from the first interview question "Can you describe your eating and drinking patterns now?" was termed nonalcoholic drinking patterns. The responses within this group pertain to the consumption of all beverages excluding alcohol. The four categories that emerged were: 1) specific beverages, 2) attitudes, 3) avoidance behaviors and 4) miscellaneous (see Figure 1). The frequency of responses for each gender is described in Table 3.

Table 3: Nonalcoholic Drinking Patterns (n=54)

Category	Females n (%)	Males n (%)	Total n (%)
Specific Beverages	18 (52)	10 (50)	28 (52)
Attitudes	13 (38)	5 (25)	18 (33)
Avoidance Behavior	7 (21)	9 (45)	16 (30)
Miscellaneous	12 (35)	7 (35)	19 (35)

Figure 3: Nonalcoholic Drinking Patterns



Specific Beverages

The first category to arise from the analysis of nonalcoholic drinking patterns was entitled specific beverages. Over one half of the subjects described consuming specific beverages. Both women and men were similar in this regard. Fifty two per cent (n=18) of the women and 50 per cent (n=10) of the men described specific beverages. The two subcategories within this category were i) nutritive beverages and ii) non-nutritive beverages (see Figure 3).

Water, milk and juice were included in the **nutritive beverages** mentioned. Each of these beverages contain vitamins, minerals or other nutrients utilized by the body. "I drink all the skim milk I want," and "I never go past a water fountain without taking a drink" were two responses in the nutritive beverages.

The subcategory of **non-nutritive beverages** included coffee and pop. Although these beverages provide fluid to the body, their ingredients that they contain make them a less healthy source of hydration than water. Two comments in this subcategory included "I probably have at least one can of diet pop a day," and "I probably drink eight to ten small cups of coffee a day and I have six or seven bottles of pop every day." The frequency of responses for both genders was fairly equal for the two subcategories.

Attitudes

Attitudes towards drinking beverages was a second category to emerge. This category included statements which suggested a position towards drinking some beverage or other. The type of drink mentioned was not the focal point of this category but instead the underlying attitude regarding consumption was. One

third of the sample who were asked the first question discussed attitudes. The frequency of responses given by women and men were different in that almost 40 per cent (n=13) of the women but only 25 per cent (n=5) of the men talked about this category. The three subcategories that comprised attitudes towards drinking beverages were i) negative attitudes, ii) neutral attitudes and iii) positive attitudes (see Figure 3).

Comments such as "I don't drink enough milk," "I drink too much coffee," and "I drink regular coke but its not good for me," were typical of the subcategory, **negative attitudes**. These statements exhibited the subjects' negative evaluation of their drinking behavior.

Although the comments in the subcategory, **neutral attitudes**, indicated that subjects had thought about their drinking behavior, they did not appear to have judged them. One subject stated "I drink a lot of water," and another said "I hardly ever drink milk." These comments do not reflect whether the subjects felt that their behavior was either good or bad.

"I'm trying to drink more milk," and "I'm drinking water conscientiously," were two responses that exhibited the third subcategory, **positive attitudes** towards drinking beverages. Clearly, the statements suggested that the subjects were trying to drink in a manner they perceived as good or important. The subcategory neutral attitudes was the most popular for both genders.

Avoidance Behaviors

A third category, avoidance behaviors, encompassed all responses which made reference to refraining from drinking specific beverages, despite the reason or motivation to do so. Avoidance behaviors were described by 30 per cent of the

subjects asked the first question. More men than women made reference to refraining from drinking specific beverages. Specifically, 45 per cent (n=9) of the men and 21 per cent (n=7) of the women mentioned this category. Three subcategories comprised this category; i) avoiding caloric drinks, ii) avoiding caffeine, and iii) avoiding water (see Figure 3).

The first group of responses described **avoiding caloric drinks**, or those beverages containing calories. For example "I don't drink milk, juice or regular pop," directly lists what caloric drinks the subject avoided. Some of the comments simply inferred these avoidances. "I drink only diet drinks" infered that the subject did not drink regular pop.

The second subcategory included statements which either directly or indirectly described an **avoidance of caffeine**. The two comments "I won't drink caffeinated drinks or coffee," and "I drink decaffeinated coffee" fit within this subcategory.

A few subjects stated that they **avoided water**, the third subcategory. Statements such as "Water, I don't drink," and "I hardly ever drink water" were typical of this subcategory.

Miscellaneous

Responses regarding drinking nonalcoholic beverages which did not have commonalities with other responses were categorized as miscellaneous. One man stated "The diet pop helps me a lot. If you take a big glass of pop and really chug it down, you're going to feel real full. Things like that make a difference." Others remarked "I probably run a bit dehydrated most of the time," and "The drinking patterns I don't think are any different than when I was losing [sic]."

Miscellaneous responses were mentioned by 35 per cent of the sample who were asked this question (12 women and 7 men).

Summary

The findings from the analysis of nonalcoholic drinking patterns indicate that successful dieters have specific attitudes and behaviors regarding fluid intake. Some people had developed negative attitudes towards their own drinking patterns while others had developed positive attitudes. Several successful dieters mentioned drinking nutritive beverages such as milk and juice while others avoided these same drinks because of their caloric value. Similar to their eating patterns, successful dieters displayed a great deal of individuality and variability in their drinking patterns.

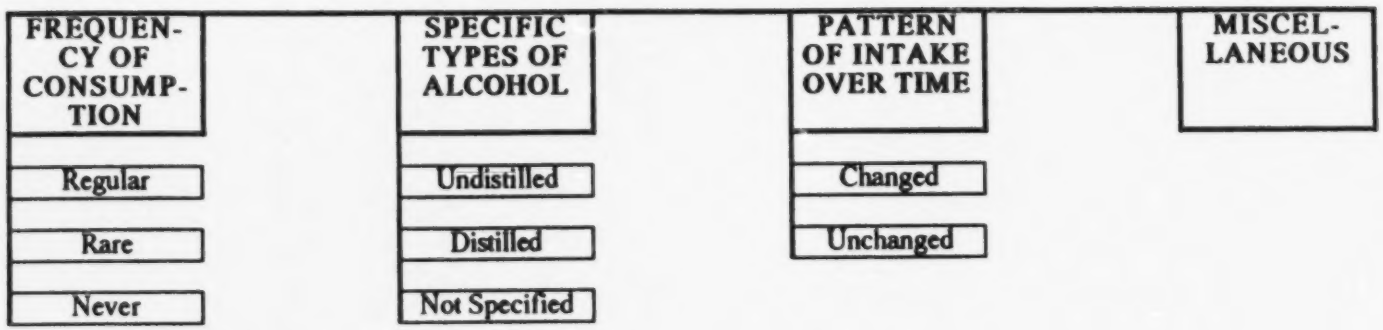
Alcoholic Drinking Patterns

After asking the first interview question, "Can you describe your eating and drinking patterns now?" the interviewer probed 27 of the subjects, (17 women and 10 men) about their alcohol intake. Questions such as "What about alcoholic beverages now?" and "Any alcoholic beverages now?" were two of the probes the interviewer utilized. The answers to the probes comprised the third domain of categories, alcoholic drinking patterns (see Figure 1). The four categories to emerge were 1) frequency of consumption, 2) specific alcohol, 3) pattern of alcohol intake over time and 4) miscellaneous. The frequency of responses for both genders for each of the categories is displayed in Table 4.

Table 4: Alcoholic Drinking Patterns (n=27)

Category	Females n (%)	Males n (%)	Total n (%)
Frequency of Consumption	17 (100)	9 (90)	26 (96)
Specific Alcohol	16 (94)	8 (80)	24 (88)
Pattern of Alcohol Intake over Time	3 (18)	4 (40)	7 (26)
Miscellaneous	7 (35)	4 (33)	11 (34)

Figure 4: Alcoholic Drinking Patterns



Frequency of Consumption

Many subjects described how often they drank alcohol. This category, termed frequency of consumption, was distinguished, not by the amount of alcohol consumed, but by the frequency. All subjects except one male who were probed for alcohol intake made comments which related to their frequency of consumption. Three subcategories were i) regular, ii) rare, and iii) never (see Figure 4).

Regular alcohol intake, the first subcategory, included responses that indicated subjects drank at least weekly. One man said "Usually a cocktail or two in the evening." Another man stated "I would say it [alcohol] would vary from one to ten on any given week."

Several subjects indicated that they drank alcohol infrequently. These responses were grouped into a second subcategory, termed **rare alcohol intake**. One subject said "Very rarely do I drink alcohol." Another responded, "I haven't [sic] had any alcohol except a glass of wine or two in the past eight months."

A group of subjects stated that they did not drink alcohol at all. This subcategory was labeled **never drinks alcohol**. As the name suggests, total abstenance was the hallmark of this subcategory. Two comments made were "No beer or alcohol intake," and "I never have been a drinker."

The frequency of responses within the three subcategories of i) regularly drinks, ii) rarely drinks, and iii) never drinks revealed more information about successful dieters (see Table 5). Just over one half of those who were probed for alcohol intake suggested that they drank regularly. Women and men responded similarly in this subcategory. A little more than one third of the sample, more

women than men, indicated that they rarely drank. Under ten per cent of the sample (only 2 out of the 27) subjects stated that they never drank.

Specific Alcohol

A second category described specific types of alcohol subjects mentioned drinking. The three subcategories were i) undistilled alcohol, ii) distilled alcohol and iii) unspecified alcohol (see Figure 4). Wine and beer were the two drinks mentioned in the **undistilled** subcategory. Drinks such as vodka, rum and liqueurs were referred to in the **distilled** subcategory and when subjects just said that they drank alcohol without mentioning a type they were placed in the **unspecified** subcategory.

Because the second category, specific alcohol, contained an unspecified subcategory, virtually all subjects who mentioned frequency of consumption excluding those that did not drink, were included in this category. This meant that 88 per cent of the subjects who were probed for their alcohol intake or 94 per cent (n=16) of the women and 80 per cent (n=8) of the men mentioned drinking specific types of alcohol. Frequencies of responses for the subcategories i) undistilled, ii) distilled and iii) unspecified alcohol are listed in Table 5. The subcategory undistilled alcohol, which included beer and wine, was discussed by 41 per cent (n=11) of the subjects asked, 47 per cent (n=8) of the women and 30 per cent (n=3) of the men. The distilled subcategory was mentioned by 30 per cent (n=8) of the subjects probed, 35 per cent (n=6) of the women and 20 per cent (n=2) of the men. Thirty seven per cent (n=10) of the those asked about their alcohol intake, or 29 per cent (n=5) of the women and 50 per cent (n=5) of the men did not specify the type of alcohol they drank.

Pattern of Alcohol Intake over Time

A third category to emerge was the pattern of alcohol intake over time. Often reference to past intake was made when a descriptions of present intake was given. Just over one quarter of those probed for alcohol described their present intake with reference to the past. Forty per cent (n=4) of the men and eighteen per cent (n=3) of the women probed, mentioned their pattern of intake over time. The two subcategories of patterns were i) changed and ii) unchanged (see Figure 4).

Subjects in the **changed** subcategory had either cut back or stopped drinking alcohol. Comments such as "I don't drink beer anymore," and "I would say its maybe even less than it was during the losing program," were included in this subcategory.

The **unchanged** subcategory included subjects who indicated that their alcohol intake had remained similar to their past consumption. One subject said "I still drink, there's no doubt there." Another remarked "They're [alcohol patterns] still about the same per week."

The frequency of responses within the two subcategories, i) pattern changed and ii) pattern unchanged are described in Table 5. The subcategory, pattern changed, was described by 20 per cent (n=2) of the men and 12 per cent (n=2) of the women probed. Eleven per cent (n=3) of those asked suggested that their pattern of alcohol intake over time had not changed whereas 15 per cent (n=4) said that it had.

Table 5: Subcategories of Alcoholic Drinking Patterns (n=27)

Category	Females n (%)	Males n (%)	Total n (%)
Regular Drinker	9 (53)	5 (50)	14 (52)
Rare Drinker	7 (41)	3 (30)	10 (38)
Never Drinks	1 (6)	1 (10)	2 (7)
Pattern Changed	2 (12)	2 (20)	4 (15)
Pattern Unchanged	1 (6)	2 (22)	3 (11)
Undistilled Alcohol	8 (47)	3 (30)	11 (41)
Distilled Alcohol	6 (35)	2 (20)	8 (30)
Unspecified Alcohol	5 (29)	5 (50)	10 (37)

Miscellaneous

Miscellaneous comments made regarding the consumption of alcohol comprised the fourth category. One woman stated "Sometimes I still inhale it [alcohol]." Another woman said "I can enjoy a cocktail if I'm with people who are having one." Miscellaneous comments regarding alcohol intake were mentioned by approximately one third of those probed for alcohol intake. The women and men did not differ significantly in this regard.

Summary

The responses from the 17 women and 10 men who were probed for alcohol consumption was somewhat surprising. They did not necessarily give up alcohol or even cut back on their consumption. In fact, over half of them were regular alcohol drinkers. Some successful dieters were able to maintain their weight and still drink a variety of alcoholic beverages. The findings in relation to alcohol must be viewed with caution because of the relatively small number of subjects who were asked this question and because this researcher does not know why some subjects were probed for their alcohol consumption while others were not. .

Question 2: Tendency to Eat Everything Served

The second interview question was comprised of two parts. Subjects were asked "Do you have a tendency to eat everything you are served?" and "Is this different from before?" Sixty six successful dieters, 39 women and 27 men answered this question. Because both parts of this question could be answered with either a yes, no, sometimes and I serve myself, a two part analysis was undertaken. First, the yes, no, sometimes and self-service responses for each of the two parts were recorded as the primary analysis. Second, content analysis was performed on the subsequent unsolicited comments made by the subjects. The categories which emerged from both the primary and the secondary analyses will be presented separately and then an overall summary of how the answers to this second interview question contributed to an understanding of the eating patterns successful dieters use to maintain their weight loss will be given.

Primary Analyses

Primary analyses of the two parts to the second interview question resulted in six, relatively straightforward, categories. These categories were 1) yes, I eat everything I am served, 2) no I do not eat everything I am served, 3) Sometimes I eat everything I am served, 4) I serve myself so I do eat everything, 5) my behavior has changed, and 6) my behavior has not changed (see Figure 5). Because categories one, two, five and six simply contained yes or no responses the only elaboration on these categories will be to list the frequency of responses in each category. The other two, sometimes I eat everything and I serve myself will be discussed in terms of their distinguishing characteristics, examples, and frequency of responses.

Several subjects mentioned more than one category in their response to the first part of the question and the results reflect this fact (see Table 6 for the frequency of responses for each category for both genders). Over half of the sample (2 missing), 41 per cent (n=16) of the women and 70 per cent (n=19) of the men stated that they did eat everything they were served, the first category. Just over 30 per cent (n=12) of the women and just under 20 per cent (n=5) of the men or 28 per cent (n=17) of all subjects said no, they did not eat everything they were served, the second category.

Figure 5: Tendency to Eat Everything Served

Table 6: Tendency to Eat Everything Served (n=66)

Category	Females n (%)	Males n (%)	Total n (%)
Yes, I eat everything	16 (41)	19 (70)	35 (53)
No, I don't eat everything	12 (31)	5 (19)	17 (28)
Sometimes I eat everything	4 (10)	3 (11)	7 (11)
I Serve Myself	18 (7)	9 (33)	16 (24)
My Behavior is Unchanged	13 (33)	14 (52)	27 (41)
My Behavior is Changed	14 36)	2 (7)	16 (24)
Strategies to Control Eating	20 (51)	16 (59)	36 (55)
Memories	17 (44)	9 (33)	26 (39)
Present Food Rules	17 (44)	5 (19)	22 (33)
Problematic Eating Behavior	5 (13)	2 (7)	7 (11)
Miscellaneous	16 (41)	12 (44)	28 (42)

Forty one per cent (n=27) of the subjects or over one half of the men (n=14) and one third of the women (n=13) remarked that their stated tendency had not changed, the fifth category. Almost one quarter of the subjects (n=16) had changed their stated tendency, the sixth category. While over one third of the women (n=14) had changed, less than 10 per cent of the men (n=2) had.

Sometimes I Eat Everything I Am Served

A few subjects indicated that they did eat everything they were served at times but did not at other times. Unfortunately, they did not give explanations as to when or why the two behaviors occured. For example, the answer "yes and no" was given without elaboration. The comment "It depends on my mood" did suggest that mood was a factor in eating behavior but no information was given to suggest which moods might result in any one type of behavior The third category, sometimes I eat everything I am served was mentioned by approximately 10 per cent (n=7) of the sample.

I Serve Myself so I Eat Everything

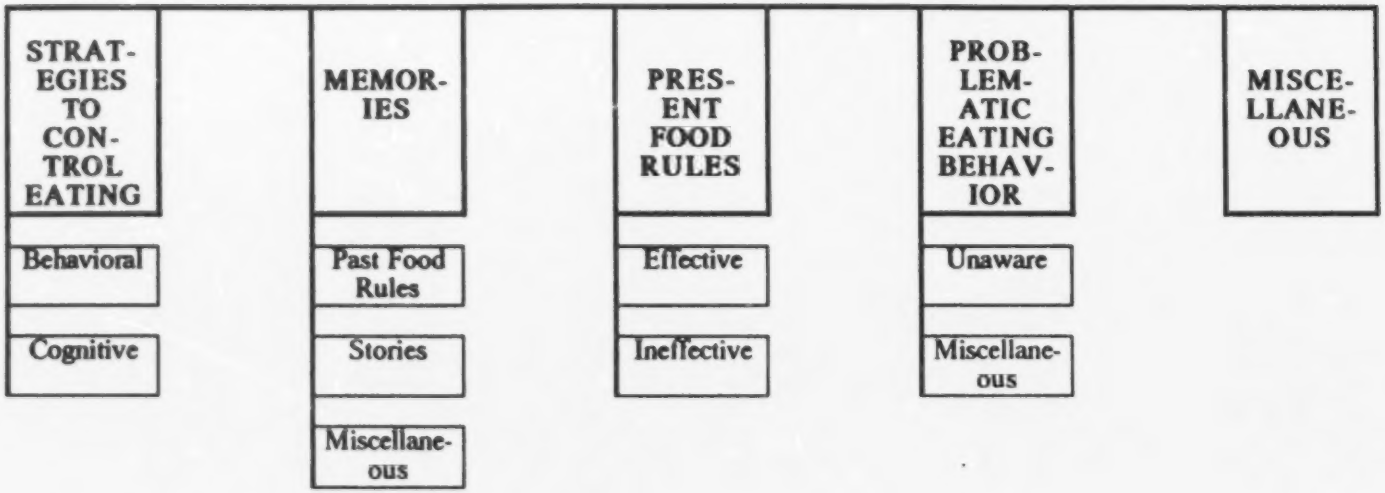
The fourth category of responses distinguished subjects who described their behavior in terms of self-service. Self-service implies control over portion whereas the question was asking about service by others which does not imply portion control. Because of this difference, if subjects indicated that they were describing their behavior when they served themselves then they were not included in either the yes, I eat everything I am served or the no, I do not eat everything I am served categories, but instead, placed in their own category. One woman's response was "Yes [eat everything]. Today I do because I measure it and I know what I'm taking. I measure it and I say those are my quantities and I don't deviate from it."

One man commented, "Yes, you eat what you take." Almost one quarter of the sample (n=16) described self-service, the fourth category. That is, 18 per cent (n=7) of the women and 33 per cent (n=9) of the men described self-service.

Secondary Analyses

A secondary analyses of the subjects unsolicited comments resulted in five other categories. These categories were 1) strategies to control eating, 2) memories, 3) present food rules, 4) problematic eating behavior, and 5) miscellaneous (see Figure 6). Each category will be discussed including a) distinguishing feature, b) frequency of responses, c) subcategories, and d) examples. Table 6 contains the frequency of responses for the five categories in the secondary analysis.

Figure 6: Secondary Analysis of Tendency to Eat Everything Served



Strategies to Control Eating

A group of subjects' responses suggested that they used specific methods to limit the amount of food they ate. This first category was termed strategies to control eating. Over half of the sample (n=36) mentioned strategies to control their eating (2 missing). In fact, 59 per cent (n=16) of the men and 51 per cent (n=20) of the women remarked on the methods they used to limit the amount of food they ate. Subjects' comments could be place in the two subcategories: i) behavioral strategies and ii) cognitive strategies (see Figure 6).

Several different actions to limit the amount of food eaten were described by the subjects. This subcategory was termed **behavioral strategies.** Some of these strategies were: portion control, removing food from sight, and leaving at least one piece of food on the plate. Comments such as "If you were at a function where you were being served, you tell people to hold back," and "If I overestimate how much I really want I just leave it on my plate," were typical of this subcategory. Other statements included "I'll just put my napkin over it because that tends to at least get it out of your view. So I try to do that kind of stuff," and "I've got to get it away from me. If I'm not going to eat it, its going to have to get gone [sic]."

Cognitive strategies to control eating was the second subcategory. The responses indicated that subjects had gained knowledge about how to control their eating and their actions reflected this knowledge. Self-awareness and self control were two examples of the cognitive strategies used. One subject remarked "One of the things I've tried to practice is asking myself am I full." Another stated "I have control." A third said "I will eat enough now that I'm full and then that's it." Over

half of the subjects described behavioral strategies whereas only 15 per cent discussed cognitive strategies. In fact, all subjects, except one who described cognitive strategies, also discussed behavioral ones.

Memories

A second category of responses was labeled memories. A lot of the subjects mentioned past memories they had retained surrounding the experience of eating. Memories subjects had retained surrounding food were described by 39 per cent (n=26) of the sample (2 missing). Forty four per cent (n=17) of the women and thirty three per cent (n=9) of the men remarked about their memories about food. The three subcategories were: i) past food rules, ii) stories told and iii) miscellaneous memories (see Figure 6).

Past food rules, the first subcategory of memories to emerge, included descriptions of what the subjects remembered being told as children with respect to how to behave at meals or when eating. One woman said "I was brought up in the era of clean up your plate. Cleaning up your plate was an absolute must," while a man remarked "I grew up with the idea of finishing everything that was there unless I just didn't like it at all." Another man stated "If you take it you had to eat it."

When subjects recounted anecdotes they remember being told to entice them to eat, they were placed in the **stories told** subcategory. Typical responses in this subcategory were "There are children starving in Africa," and "I was brought up to think of the poor starving kids."

Miscellaneous memories was the third subcategory of responses. "I think growing up, I don't think we were ever really told to clean our plates, but I think I always liked eating so I just always did" was one statement that did not have

any commonalities with other responses. Other statements in this subcategory were "I kind of grew up leaving stuff on my plate," and "eating everything goes all the way back from my grandmother [sic]."

Present Food Rules

When subjects described rules or practices they tried to follow when eating, their responses were placed in a third category, present food rules. One third of the sample or 22 subjects, less the 2 missing, described their present food rules, the third category. Men and women differed in this regard. Over 40 per cent (n=17) of the women described the rules or practices they tried to follow when eating whereas less than 20 per cent (n=5) of the men did. These rules were either i) effective or ii) ineffective (see Figure 6).

Effective food rules had the potential to limit the amount of food eaten. For example, subjects may no longer feel an obligation to eat all the food served to them or they may have decided to leave foods that they did not like. One subject remarked "If I don't like it I don't eat it, period." Another said "Now, if I don't want to try it I won't."

Ineffective food rules had the potential to promote excessive eating. Having the need to clean one's plate completely and not wanting to waste food were two rules subjects mentioned. A woman said "I lick my plate clean," and a man commented "When you directly feel like you're paying for this out of your pocket, you've got to eat it." Similar numbers of effective and ineffective food rules were described by the subjects.

Problematic Eating Behavior

A fourth category to arise from the secondary analysis of the second interview question was problematic eating behavior. Eating behaviors described by subjects which could potentially cause them to gain weight were included in this category. Problematic eating behavior was discussed by just over 10 per cent (n=7) of the total sample (2 missing). Proportionately more women than men described eating behaviors which had the potential to promote weight gain. That is, 13 per cent (n=5) of the women and 7 per cent (n=2) of the men contributed to this category. The two subcategories were i) unaware and ii) miscellaneous (see Figure 6).

Unaware eating behavior was the first subcategory to arise. Subjects were unaware of their feelings of hunger and satiety or unaware of whether the food tasted good or bad. For example, one woman said "I can always find room for something." Another commented "Whether it was good or bad, I was no judge of quality." A third woman said "If I go out and eat and all this good food is there, I'm generally going to eat it, even if I'm full."

Miscellaneous problematic eating behaviors was the second subcategory. Statements such as "I am missing out if I leave things," and "There is still a tendency to try to eat everything," were placed in this subcategory. The two subcategories, unaware and miscellaneous eating behaviors were mentioned by similar percentages of subjects.

Miscellaneous

The secondary analysis of the two part question "Do you have a tendency to eat everything you are served?" and "Is this different than before?" resulted in a

number of responses which did not fit into any of the aforementioned categories. For example, the statements "I'll sit there and finish it and be miserable the rest of the night," and "I get tired of chewing sometimes and I just quit eating," did not fit with any other statements made. Miscellaneous comments, the fifth category, were made by 42 per cent (n=28) of the total sample (2 missing). Comparable proportions of women and men made comments which did not fit with any others.

Summary

The two-step analysis of the second interview question yielded several interesting findings. Most successful dieters continued to eat everything that they were served and had not changed this pattern despite their history of dieting. The majority of successful dieters used a variety of strategies to control their eating, a finding congruent with previous findings in this study. Self-awareness was evidenced by one group who recognized that they had problematic eating patterns. Finally, even years later, some people comment on their childhood experiences surrounding food.

Question 3: Food Restrictions

The third interview question, "Are there foods you do not allow yourself to eat?" was asked to sixty seven successful dieters, 40 women and 27 men. It resulted in four categories of responses; 1) no restrictions, 2) conditions for food restrictions, 3) specific types of foods avoided, and 4) miscellaneous (see Figure 7). First, a description of each of the three categories including: a) distinguishing characteristics, b) frequency of responses, c) subcategories, and d) examples will be discussed. Second, a summary of how these answers contribute to the understanding of the eating patterns successful dieters use to maintain their weight will be described. Table 7 illustrates both genders' frequency of responses for each category.

Figure 7: Food Restrictions

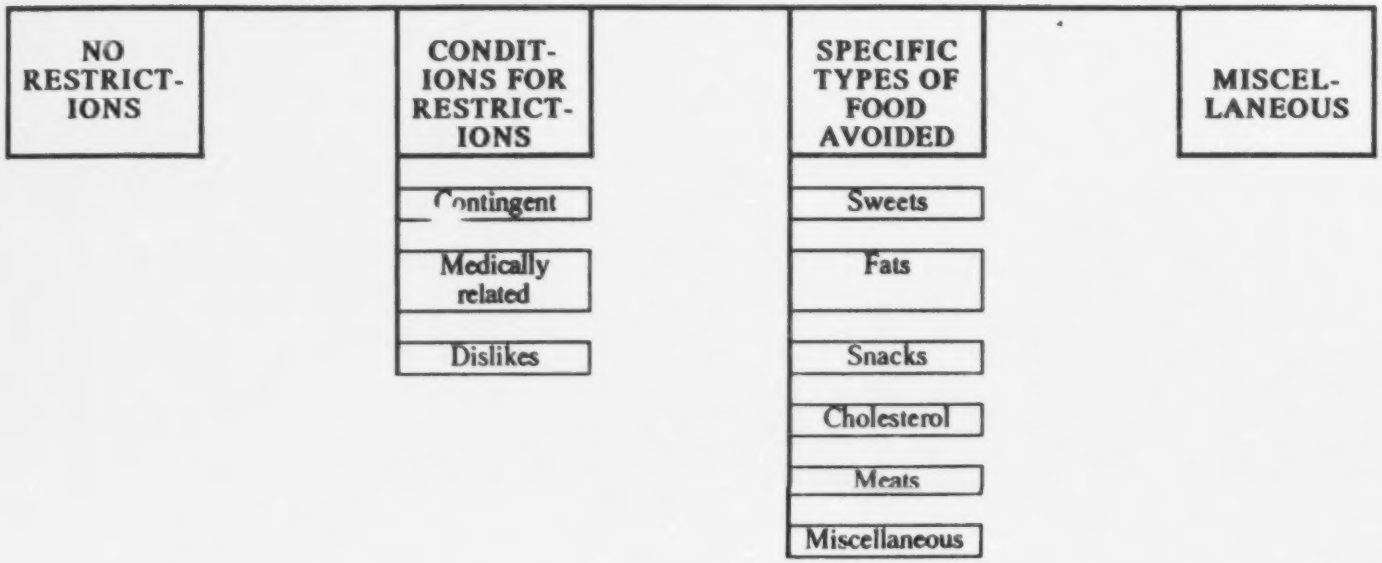


Table 7: Food Restrictions categories and subcategories(n=67)

Category	Females n (%)	Males n (%)	Total n (%)
No Restrictions	17 (43)	12 (44)	29 (43)
Conditions for Restrictions	18 (45)	13 (48)	31 (46)
Contingent Restrictions	14 (35)	11 (41)	25 (37)
Medically Related Restrictions	2 (5)	1 (4)	3 (4)
Dislikes	3 (8)	1 (4)	4 (6)
Specific Types of Food Avoided	24 (60)	16 (59)	40 (60)
Avoids Sweets	16 (40)	10 (37)	26 (39)
Avoids Fats	8 (20)	8 (30)	16 (24)
Avoids Snacks	2 (5)	3 (11)	5 (7)
Avoids Cholesterol	0 (0)	3 (11)	5 (7)
Avoids Meats	1 (3)	2 (7)	3 (4)
Miscellaneous Avoidances	7 (18)	5 (19)	12 (18)
Miscellaneous	3 (8)	9 (33)	12 (18)

No Restrictions

Several subjects stated that they had no food restrictions whatsoever. That is, they ate anything they wanted to eat whenever they wanted to eat. One woman said "No there aren't foods I don't allow myself to eat," and another said "Nothing that I say I can't have." Almost one half of the sample (n=29) stated that they had no eating restrictions. The percentage of women and men who described this first category was similar. Forty three per cent (n=17) of the women and 44 per cent (n=12) of the men had no food restrictions.

Conditions for Food Restrictions

When subjects made general statements regarding food restrictions without describing any specific foods, their comments were placed in the second category, conditions for food restrictions. Forty six per cent of the subjects (n=31) made statements regarding conditions for food restrictions without describing specific foods. That is, 45 per cent (n=18) of the women and 48 per cent (n=13) of the men contributed to this category. The three subcategories subsumed under this label were i) contingent restrictions, ii) medically related restrictions, and iii) dislikes (see Figure 7).

A first subcategory identified was termed **contingent restrictions**. As the label implies, these restrictions were dependent on some other variable. For example, some subjects would only allow themselves to eat a certain amount of food, others restricted the frequency of consumption and still others made trade-offs. That is, they only ate certain foods if they did not eat others or if they did some form of exercise. The comments "I allow myself to eat just about anything within moderation," and "If, let's say there's a dessert somewhere for dinner,

instead of having a whole portion, I'll have part of a portion," were typical of this subcategory. Other responses were: "There are things I eat every couple of months or so, like pizza, pies, things like that," and "If there's something I really want and its high in calories then I'd just say its a trade-off, you've got to cut back somewhere else.[sic]"

Medically related restrictions was the label given to a second subcategory. Some subjects said that they were allergic to specific foods, that doctors had advised them to avoid other foods, or that since surgery they could not tolerate certain foods. These subjects were avoiding specific foods because of medical advise or because of the adverse effects brought on by ingesting the foods. One comment made was "Since last May I'm on a cholesterol diet because my cholesterol was high." Another mentioned "I won't touch regular ice cream partly because I'm allergic to it."

The third subcategory in the conditions for food restrictions was the **dislikes**. Some subjects cited specific foods they did not eat because they did not like the taste of them. One subject stated "I don't eat anchoves because I hate them," and another said "Some things I don't eat because I find I don't like them. I don't really care for chocolate." Analyses of the three subcategories, i) contingent restrictions, ii) medically related restrictions and iii) dislikes, enhanced interpretation of this category (see Table 7 for frequency of responses for the subcategories).

Contingent restrictions was the subcategory that made up the bulk of the category, conditions for restrictions. In fact, 25 out of the 31 subjects who were classified in this category mentioned contingent restrictions. Specifically, 41 per

cent (n=11) of the men and 35 per cent (n=14) of the women who were asked the third interview question responded with answers that were subsequently categorized as contingent food restrictions.

The other two subcategories were minor contributors to the category, conditions for restrictions. Only four per cent of the sample or three out of 31 subjects who were included in the conditions for food restrictions category mentioned medically related restrictions, the second subcategory. Food dislikes, the third subcategory, was discussed by four subjects or six per cent of the sample.

Foods Avoided

A third category to emerge from the analysis of the question "Are there foods you do not allow yourself to eat?' was called specific types of foods avoided. When subjects listed specific foods or food groups that they avoided their responses were placed into this category. Sixty per cent of the subjects, 24 women and 16 men, described specific foods avoided. The six subcategories of specific types of foods avoided were i) avoiding sweets, ii) avoiding fats, iii) avoiding snacks, iv) avoiding cholesterol, v) avoiding meat and vi) miscellaneous avoidances (see Figure 7).

The first subcategory was **avoiding sweets**. Products such as baked goods, desserts, ice cream, chocolate and candy were defined as sweets. One woman said "I wouldn't think of eating a candy bar," and another said "I don't eat sugary foods." Other comments made were "I really just don't allow myself to have desserts," and "I don't eat anything that is predominantly sugar."

The second subcategory, **avoiding fats**, included fat frying, gravy and fast food restaurants. Comments classified in this subcategory were "I don't eat

french fries," "I just avoid fats pretty much as I can [sic] across the board," and "I don't eat fast foods like mexican or pizza."

When subjects mentioned that they **avoided snacks** or specific items such as chips or pretzels, then their responses were placed in the third subcategory, avoiding snacks. The comments "No potato chips," and "No pretzels or those snack kinds of things," exemplify this subcategory.

Avoiding cholesterol was the fourth subcategory. Any product commonly known to be high in cholesterol, such as eggs or mayonnaise, were included in this subcategory. The comment "I just don't eat eggs," was mentioned by several subjects.

When subjects made statements like "I won't eat pork," "I don't eat meat," and "I won't eat tenderloin," their comments were placed in the third subcategory, **avoiding meats**. As the examples suggest, some subjects avoid all meats while others avoid only specific types of meats

Miscellaneous avoidances was the final subcategory of specific types of foods avoided. Other foods which were placed in this subcategory included those that could have been placed into more than one of the previously stated subcategories if the subjects did not indicate why they were avoiding them. For example, the comment "solid cheese, I just don't eat solid cheese," gave no indication of whether the person avoided cheese because of its caloric value or fat content. A previous cited example where the subject stated they avoided all fats including fast foods and pizza suggests that the woman does not eat pizza because of its fat content and not due to its caloric value and therefore her statement belonged in the avoiding fat subcategory and not in the miscellaneous subcategory.

Another response in this subcategory was "I don't eat heavy foods and I avoid hot breads."

An examination of the frequency of responses from the subjects in the specific types of foods avoided enhanced the understanding of successful dieters (see Table 7). Almost 40 per cent of those sampled, 16 women and 10 men, stated that they avoided sweets such as desserts, chocolate and candy. The percentage of responses by women and men were similar. Approximately one quarter of the sample, (8 women and 8 men) avoided fats but proportionately more men (30 per cent) than women (20 per cent) were represented in this subcategory. Avoiding snacks was mentioned by only seven per cent of the sample, (2 women and 3 men). Three men but no women described avoiding cholesterol while two men and one women discussed avoiding meats. Eighteen per cent of the sample, (7 women and 5 men), described miscellaneous avoidances.

Miscellaneous

Miscellaneous responses to the third interview question comprised the fourth category. These responses did not have anything in common with other responses. For example, one woman said "I try to realize how my body feels following some of these foods. If I feel sluggish, then something tells me that there was something about that food that must not have been necessarily good for me and I think, do I really want to feel sluggish." Another woman commented "If I break down my resistance by having sugar food right at the start, then it's easy to get real lax and say I can probably take this off when I get home." Remarks by men included "When I go out on a binge then of course I eat anything that appeals to

me," and "I'm not going to insult my host and not eat what they prepare." Almost 20 per cent of the sample (3 women and 9 men) made miscellaneous comments.

Summary

The analysis of the question "Are there foods that you do not allow yourself to eat?" reveals more information about successful dieters. A substantial number of successful dieters have not restricted themselves at all. Even more of them have allowed themselves to eat everything but have placed conditions on their eating. Some successful dieters have found ways to compensate for eating specific foods. Overall, successful dieters do not attempt to stick to perfect diets but they have developed individual methods and strategies to maintain their weight losses.

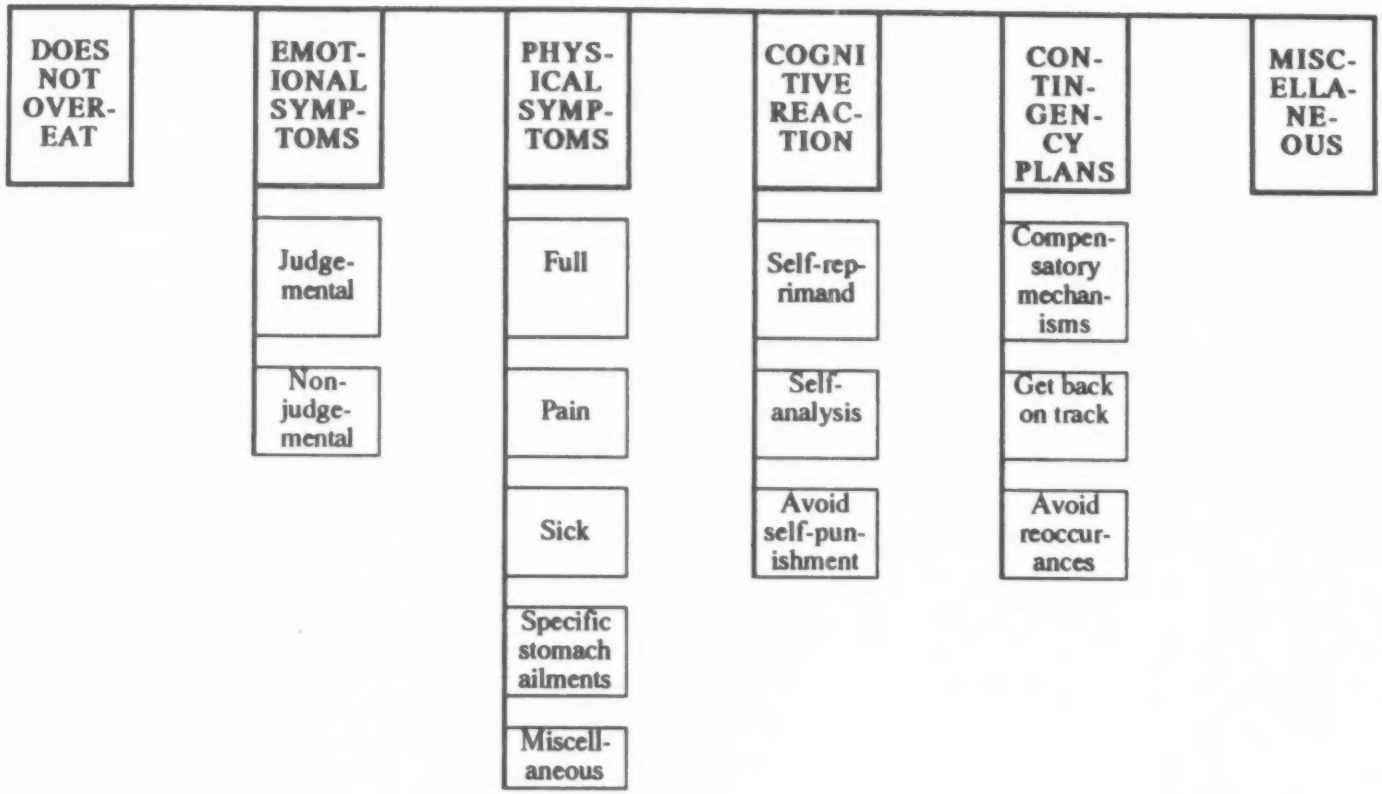
Question 4: What Happens when you Overeat?

"What happens, or how do you feel when you overeat now?" was the fourth interview question used to identify the eating patterns successful dieters use to maintain their weight losses. Sixty two subjects (38 women and 24 men), were asked this question. The six categories of responses emerged from the analysis were 1) does not overeat, 2) emotional symptoms, 3) physical symptoms, 4) cognitive reactions, 5) contingency plans and 6) miscellaneous (see Figure 8). Each category will be described in terms of a) distinguishing charactheristics, b) frequency of responses c) subcategories, and d) examples. Table 8 highlights the frequency of responses for each of the six categories of responses to the fourth interview question. Finally, a summary of how all the categories contribute to answering the research question will be discussed.

Table 8: Overeating (n=62)

Category	Females n (%)	Males n (%)	Total n (%)
Does Not Overeat	2 (5)	6 (25)	8 (13)
Emotional Symptoms	21 (55)	10 (42)	31 (50)
Physical Symptoms	15 (40)	11 (46)	26 (42)
Cognitive Reaction	13 (34)	11 (46)	24 (39)
Contingency Plans	17 (44)	5 (21)	22 (36)
Miscellaneous	14 (37)	14 (58)	28 45)

Figure 8: What Happens When You Overeat



Does Not Overeat

Several subjects simply stated that they could not answer the question because they did not overeat. These responses were grouped into a category, does not overeat. Statements like "I don't overeat," and "I can't remember overeating," were typical of this category. One man explained why he did not overeat when he said "I can't eat a big meal anymore because I've just got my system used to an average to medium meal." Only 13 per cent of the the subjects contributed to this first category. Proportionately and absolutely more men (25 per cent, n=6) than women (5 per cent, n=2) did not overeat.

Emotional Symptoms

A second category to arise from the fourth interview question was labeled emotional symptoms. Half of the subjects (n=31) described emotional symptoms from overeating (21 women and 10 men). Subjects described their emotions in a manner that was either i) judgemental or ii) nonjudgemental (see Figure 8).

Some subject's remarks indicated that they had **judgemental emotions** with regards to their overeating. That is, the way in which the emotions were mentioned by the subjects suggested that they were critizing or condemning themselves. For example, the comment "I am bad," suggested that an opinion about the self was made whereas the statement "I feel bad," did not. The former was classified as judgemental, the latter was not. Another judgemental statement made was "I don't like myself."

Nonjudgemental emotions, the second subcategory, encompassed emotions or statements of affect which did not have an evaluative component. That is, the emotions did not appear to challenge the self-concept in any way.

Responses in this subcategory included "I feel miserable emotionally," "Pangs of guilt," "I get angry at myself," "I'm real unhappy," and "I feel like I am being really bad." With respects to the two subcategories, nonjudgemental emotions were four times more frequent than judgemental emotions. That is, only seven subjects evaluated themselves negatively whereas 27 subjects simply described negative emotions which did not involve criticisms of the self-concept.

Physical Symptoms

A large group of subjects (42 per cent of those asked) described the bodily feelings and sensations that resulted from overeating. This group of responses became a third category, termed physical symptoms. The genders were comparable in this regard, 40 per cent (n=15) of the women and 46 per cent (n=11) of the men contributed to this category. Five subcategories of physical symptoms were i) full, ii) pain, iii) sick, iv) stomach ailments, and v) miscellaneous (see Figure 8).

Subjects who stated they felt full, stuffed or bloated were placed in the first subcategory, **full**. One man remarked "I just feel like I'm a stuffed pig," and another commented "I feel a little fuller."

Pain was the second subcategory to emerge. Descriptors such as discomfort, uncomfortable, physically miserable and physically terrible were classified as pain. If the terms miserable and terrible were used but no indication of whether these were physical or emotional sensations then the responses were not placed in the pain subcategory but instead put into the miscellaneous category, to be described later. Remarks which were classified as pain include "Physically feeling uncomfortable," and "I get very severe pain."

General responses that indicated the subjects felt sick ill or unwell without any other qualifying information were placed in the subcategory entitled, **sick**. "I feel sick. Really, not just uncomfortable but sick," and "I feel physically ill," were exemplary of this subcategory.

The fourth subcategory was called **stomach ailments**. When subjects mentioned symptoms specifically pertaining to the stomach such as indigestion, upset stomach, nausea and burping their responses were placed in this subcategory. For example, the statement "I have pain," was placed in the second subcategory, pain, but the statement "I have stomach pain," was placed in this subcategory, stomach ailments. Other comments placed in this subcategory were "I feel kind of sick to my stomach," "It really stretches my stomach," "Physically, I have a tight stomach," and "I will throw up."

Miscellaneous physical symptoms emerged as the final subcategory. Two comments classified in this manner were "I physically do not feel good," and "I really don't feel anything at the time I overeat except when I get up in the morning and my eyes feel like little slits. Because I've either been into the salt or the sugar. And then when I leave them alone my body goes back to normal and my eyes are fine." A third comment made was "if it [thing I overeat] would happen to be cookie dough or something that is high in fat content then I get the worst charlie horses all night." The subcategories, full, pain, sick stomach ailments and miscellaneous resembled each other in frequency of responses with a range of 13 to 25 per cent of the sample mentioning each of the subcategories.

Cognitive Reactions

Some subjects discussed their cognitive reactions to overeating, a fourth category that emerged from the question "What happens or how do you feel when you overeat?". Many subjects described their perception and understanding of what was going on when they overate which demonstrated that they were thinking about this experience. Almost 40 per cent of the subjects (13 women and 11 men) described the thinking process that went on after they overate. The proportion of men who described their cognitive reaction to overeating was greater than the proportion of women; 46 per cent as compared to 34 per cent. The four subcategories to emerge were i) self-analysis, ii) self-reprimand, iii) avoid self-punishment and iv) miscellaneous (see Figure 8).

Subjects whose comments suggested that they were trying to analyze the situations in which their overeating occured were placed in the first subcategory, entitled **self-analysis**. These subjects appeared to be trying to understand why they behaved as they did. Two responses made were "I say to myself what are you doing," and "I think, I didn't want that, why did I eat that."

The second subcategory, **self-reprimand**, included responses that suggested subjects were chastising or blaming themselves for overeating. One subject said "It was unnecessary. There was really no reason to do it. I didn't need that food. I didn't need those calories." Other comments were "I go through the old beat yourself over the head with a club thing," and "I say to myself you didn't have to do that."

Avoiding self-punishment was the third subcategory of cognitive reactions to overeating. A group of subjects tried to talk themselves out of

punishing themselves for overeating. For example, several subjects mentioned that they tried not to feel guilty. A man commented "I don't punish myself."

The final subcategory, entitled **miscellaneous cognitive reactions**, suggested that some thought had gone into the overeating experience but the responses did not fit in any of the other subcategories. One woman said "I'm always aware that I'm the one who did it. I'd best not take it out on anybody around me because I'm the one who did it." A man stated "We all overeat occasionally but I guess I look at it as not one meal. I think if I overate for a week or ten days, I'd probably feel crappy about it. But I don't think I'm going to be in that position. I can overeat for a meal or even a day or two and in the long run I think that it will balance up." One other man commented "I don't have any mental problem with it because I can go back and do it again tomorrow."

Contingency Plans

Contingency plans was the label given to a fifth category which emerged from the question "What happens or how do you feel when you overeat?" Having overeaten, several subjects described how they planned out what they would now do about it. Contingency plans for overeating was mentioned by just over one third of the subjects. Forty four per cent (n=17) of the women compared to twenty one per cent (n= 5) of the men described what they did once they had overeaten. The three subcategories subsumed within this category were i) compensatory mechanisms, ii) get back on track and iii) avoid reoccurrences (see Figure 8).

Some subjects thought of strategies that they could enact once they had overeaten. These responses formed the first subcategory, **compensatory mechanisms**. One woman said "I want to almost not eat the next day, or just

barely eat until I get that weight back off." Another woman remarked "I just say you have to make up for it tomorrow. You're just going to have to cut out whatever you were going to eat tomorrow" Other comments were "You can't wait to walk," and "I'll run religiously and I'll try to cut back in the evenings too."

Getting back on track was the second subcategory. A few subjects made statements that indicated that after overeating they just went back to their regular diet regime. One subject said "I go right back to my diet." Another commented "I just need to get back on track. Just get back on track because it does happen." A final remark was "I would be very strict to go right back the very next meal into having a legal amount of food and not deprive myself the next meal."

Several subjects made specific reference to trying not to let themselves overeat again. This final subcategory of contingency plans was labeled **avoiding reoccurrences**. One woman's response,"I just try to talk myself into, okay, this has happened, and it doesn't happen at the next meal or it doesn't happen in another hour," was exemplary of this subcategory. Other remarks were "If I would eat something wrong or overeat one day, I make sure that I wouldn't the next," and "I didn't enjoy that [overeating], and I'm not going to do that again."

Miscellaneous

The final category of responses pertaining to overeating was termed miscellaneous. If a subject described a symptom which could have been either physical or emotional then it was also placed in the miscellaneous category. Statements included in this category were "You're going to slip up and sometimes you just have to give in," "If I overeat I feel miserable," "The first time it [overeating] doesn't bother you too much," "If I feel I really have to do something

like that [overeat] I let myself do it and I'm not depriving myself but then I'm paying for it a bit later," "I try to avoid food because if there is anything there I'll try to clean it up," and "You say to yourself, I wonder what the scale is going to say tomorrow. That's the problem, it won't lie. It's a health meter." Almost half of the sample made miscellaneous comments, the final category. Over one half (n=14) of the men and over one third (n=14) of the women made statements that did not fit with any others.

Summary

The analyses of the question "What happens or how do you feel when you overeat?" highlighted several important findings. Only a small number of successful dieters simply did not allow themselves to overeat. Other successful dieters' descriptions of negative emotions, some of which were judgemental towards themselves, indicated that they suffer emotionally as well as physically when they overeat. Almost 40 per cent of successful dieters react cognitively to overeating (13 women and 11 men). Finally, over one third of the successful dieters actually thought about, tried to understand and even planned for their bouts of overeating (17 women and 5 men).

Fundamental Themes

Taken as an entirety, the four interview questions contributed to a general understanding of the eating patterns successful dieters use to maintain their weight losses. Thus far, the results of each question have been presented separately. This section integrates all of the findings together by describing three fundamental themes that this study uncovered. These themes are: 1) awarenesss of the eating experience, 2) individualized eating patterns, and 3) success does not mean

perfection. Each of the themes will be briefly described and the contributing categories will be outlined in order to achieve a greater understanding of of the content.

Awareness of the Eating Experience

The first fundamental theme to emerge from the categories of all four interview questions is an awareness of the eating experience. Some successful dieters do not simply lose weight and then abandon all they have learned in the process. Instead, they continue to be conscious of what they are eating, even when weight loss is not an issue. This is not meant to suggest that successful dieters never indulge but simply that they are aware of their eating behavior.

Several of the categories and subcategories contributed to the theme of awareness. From the first question, diet regime, nutritional awareness, strategies to control eating and the avoidance behaviors suggested that some successful dieters are aware of what they are consuming. Likewise, the strategies to control eating and effective food rules from the second question and all of the restrictions from the third question pointed to an awareness of the eating experience. A few successful dieters remained on strict reducing diets, but the majority just "watched" what they ate; they have become vigilant.

Individualized Eating Patterns

The successful dieters in this study developed individualized eating patterns, the second theme to emerge. That is, the actual eating patterns utilized by the sample appears to be unique to each indivual. Some successful dieters manipulate what they learn about weight loss and maintenance into an eating pattern that is congruent with their own lifestyle. A few remain on rigid diets while others simply

eat less of what they ate in the past. Some avoid specific foods and beverages while others simply limit the amount or frequency of consumption of certain foods. Some successful dieters have developed strategies to control their eating and plan out how to compensate for their indulgences. Although they have problematic eating behaviors, and most overeat at times, successful dieters have learned how to handle these events without regaining their weight. In effect, they have tailored their eating patterns to their personalities and lifestyles.

Success Does Not Mean Perfection

The third fundamental theme which arose from the content analysis categories was that these successful dieters recognized that success does not mean perfection. Many of them have learned that they do not have to adhere to a strict reducing diet for their entire life. Most will overeat on occasion, will indulge at times and continue to drink alcohol but they appear to have developed realistic attitudes and goals towards the eating experience. While this is not meant to suggest that successful dieters do not feel guilty for overeating, at times they do, but only that these feelings do not immobilize them. Many successful dieters have learned that to be successful in maintaining their weight losses they do not have to have perfect diets.

Tests of Association

Chi-square tests of associations were performed on each of the categories from all of the questions and: i) age, ii) gender, iii) ethnicity, iv) occupation, v) marital status, vi) living arrangements, vii) maximum BMI, viii) age at maximum BMI, ix) amount of weight loss, x) length of time to lose weight, xi) length of time maintained weight loss, xii) frequency of dieting at present and xiii) restrained

versus unrestrained eater. Chi-squares were also performed on the categories from the questions such as strategies to control eating from the first and second question. The SPSSx program used Fisher's exact test to compute the expected frequencies for any cells in the chi-square that had fewer than 20 subjects (Norussis, 1988). Any mention of significant or insignificant results for the remainder of this analysis will utilize the value of p=0.05 for significance. Although all the above chi-square tests of association were performed, only significant results will be described in the following section.

Question 1: Eating and Drinking Patterns

Chi-square tests of association were performed on all of the eating pattern categories and the demographic characteristics, however only one statistically significant result was obtained. Women were more likely than men to mention their meal schedule (chi-sq= 5.24, df=1, p=0.02, see Table 9). No statistically significant results were obtained when the categories of nonalcoholic and alcoholic drinking patterns were cross-tabulated with sample characteristics .

Table 9: Meal Schedule by Gender

GENDER	MEAL SCHEDULE		
	Mentioned n (%)	Not Mentioned n (%)	Total n (%)
Women	19 (56)	15 (44)	34 (63)
Men	4 (20)	16 (80)	20 (37)
Total	23 (43)	32 (57)	54 (100)

Chi-square=5.24, df=1, p=0.02

There were no statistically significant associations among the categories from the first interview question however several interesting trends are worth mentioning. Of the 12 subjects who mentioned strategies to control eating, 4 also commented on nutritional awareness. Of the 30 subjects who discussed their dieting patterns, the first five subcategories of the diet regime category, 8 described nutritional awareness and 10 mentioned strategies to control eating.

Question 2: Tendency to Eat Everything Served

Chi-square tests of association were performed on the primary and secondary analysis categories and the demographic characteristics of the sample. Men were more likely than women to eat everything they were served (chi-sq=4.40, df=1, p=0.04, see Table 10). Women were more likely than men to have changed their tendency to eat everything served (chi-sq=5.59, df=1, p=0.02, see Table 11). Only three other gender differences were discovered in this whole study and all have been mentioned previously. First, there were significantly less men than women under the age of 40. Second, significantly more women than men were at their maximun weight before the age of 30 years. Third, more women than men mentioned their meal schedule

Table 10: Tendency to Eat Everything Served by Gender

GENDER	TENDENCY TO TO EAT EVERYTHING SERVED		
	Mentioned n (%)	Not Mentioned n (%)	Total n (%)
Women	16 (41)	23 (59)	39 (59)
Men	19 (70)	8 (30)	27 (41)
Total	35 (53)	31 (47)	66 (100)

Chi-square=4.40, df=1, p=0.04

Table 11: Tendency to Eat Everything Served has Changed by Gender

GENDER	TENDENCY TO EAT HAS EVERYTHING CHANGED SERVED		
	Mentioned n (%)	Not Mentioned n (%)	Total n (%)
Women	14 (36)	25 (64)	39 (59)
Men	2(7)	25 (93)	27 (41)
Total	16 (24)	50 (76)	66 (100)

Chi-square=5.59, df=1, p=0.02

Two other significant results were found in relation to the second question. Successful dieters over the age of forty years were more likely to mention that they did not eat everything they were served as compared to those under forty years of age (chi-sq=4.90, df=1, p=0.03). Those subjects who had lost 41 or more

kilograms were less likely to mention past memories than those who had lost less than that amount of weight (chi-sq=6.43, df=2, p=0.04).

Subjects who had reached their maximum weight at 51 years or older were less likely to mention eating everything they were served as compared to those who had reached their maximum weight at 50 years or younger (chi-sq=6.53, df=2, p=0.03). Successful dieters who rarely diet, as compared to those who either sometimes or frequently dieted, stated that their tendency to either eat or not eat everything they were served had changed (chi-sq=5.93, df=2, p=0.05). Those subjects who had reached their maximum weight between the ages of 31 and 50 were less likely to describe past memories than those who had reached their maximum weight at 30 years or less or at 51 years or more (chi-sq=11.25, df=2, p=0.04). Subjects who lived with others were less likely to mention problematic eating behavior than subjects who lived alone (chi-sq=4.09, df=1, p=0.04). The four results stated in this paragraph, while statistically significant, may be inaccurate because at least 25 per cent of the cells had fewer than five subjects in them. These results are given because while they may not be accurate, they may indicate trends which warrant future investigation. All other associations among the demographic data and the categories from the second question were insignificant.

No statistically significant associations were obtained when chi-square tests were performed on the relationship among several of the categories in the first two questions. Despite this fact several trends are worth commenting on. Half of those who mentioned dieting pattern, the first five subcategories of the diet regime category in the first question, also mentioned strategies to control eating in the

second question. Eight of the fifteen who described nutritional awareness from the first question also commented on strategies to control eating in the second question.

Question 3: Food Restrictions

No statistically significant associations were obtained from the third interview question categories and any of the demographic data of the sample. Associations among the categories of the first three questions were also calculated and no statistically significant results were obtained although several trends will be described. Of the 16 subjects who described nutritional awareness from the first question, 7 avoided sweets and 5 avoided fats. That is, at least one quarter of those who avoided sweets and fats also demonstrated a knowledge about the nutritional value of foods. Ten out of the 18 or more than half of those who commented on contingent food restrictions from the third question also mentioned dieting patterns, the first five subcategories of the category, diet regime from the first question.

Question 4: What Happens When You Overeat?

No statistically significant associations were obtained from the fourth interview question categories and any of the demographic data of the sample. Chi-square test were then done on the categories from the four interview questions and again, no statistically significant results were found however a few trends warrant mentioning. Of the 27 subjects who mentioned diet pattern from question one, 12 described cognitive reactions and 11 discussed contingency plans, both of which were from the fourth question.

Conclusion

This chapter described content analysis findings, emerging fundamental themes and associations among the data. These findings provide insight into the

eating patterns successful dieters use to maintain their weight loss. The fact that many successful dieters have specific dieting patterns, are aware of what they are eating and do avoid specific foods and beverages suggests that even after weight loss is achieved, people are aware of their eating behavior. Their use of strategies to control eating, their avoidance behaviors and their present food rules indicate that successful dieters have found ways to cope with their eating in a manner that allows them to maintain their weight losses.

The findings that successful dieters have utilized food restrictions, make contingency plans for overeating and that some do not give up alcohol suggests that they have come up with realistic maintenance guidelines. They do not strive to be perfect. Although they recognize that they may not always eat and drink in a "healthy" fashion, they have devised ways to limit the effects of their digressions. By describing problematic eating behaviors, successful dieters demonstrate they are conscious of their eating behavior. Successful dieters are aware of their eating patterns and use this awareness to develop individual plans to help them maintain their weight losses.

V. DISCUSSION AND CONCLUSIONS

Applied research is not complete until the investigator reflects on the importance of the findings, the limitations of the study, and the recommendations that can be made as a result of the research. This chapter contains the following sections: 1) discussion, 2) limitations of the study, 3) recommendations for nursing practice, 4) recommendations for nursing research, and 5) summary and conclusions.

Discussion

The three fundamental themes and associated categories to emerge from the present study suggest that successful dieters have learned to adapt their eating patterns to their lifestyles in order to maintain their weight losses. Several other studies have made similar conclusions. This section will discuss this study's results, both generally and specifically, in relation to other research.

The current study suggests that successful dieters are aware of the eating experience, that they develop individualized eating patterns and that they do not strive to be perfect dieters. These themes give support to Allan's (1989; 1991), research results and her subsequent model of how women manage their weight. Allan (1991), stressed that "women who learned to manage their weight successfully eventually moved to a three-stage process: appraising, enacting and maintaining (p. 228). The later two stages are pertinent to this research. In the enacting stage, women are in an active dieting phase which also encompasses a lifestyle change. In the maintenance stage, women modify their dieting tactics, solidify their lifestyle changes, and revert to former habits (Allan, 1991). Some of the diet tactics that Allan (1991), found to be most commonly used were skipping

meals, reducing intake of high caloric foods, and taking smaller portions; similar strategies were mentioned by the subjects in this present study.

The results from Colvin and Olson's (1984) study of weight loss maintainers are congruent with the findings in this present study. They found that, after losing weight, both women and men eat more nutritiously and have a better knowledge of nutrition. The women in their study did not follow any formal diet but did decrease the amount of fats, refined sugars and red meats in their diet. They also snacked less and even skipped meals. In their discussion, Colvin and Olson (1984) state "They [women] have individualized diets and eating patterns which are effective for them" (p. 294). The researchers did not mention this information for the men. The three fundamental themes, categories and subcategories such as nutritional awareness, dieting pattern, strategies to control eating, and no snacking which were identified in this present study are supported by Colvin and Olson's results. Because they pertain to men as well, these research findings extend our knowledge about successful dieters.

This present study revealed the importance of utilizing indivualized eating patterns. Several other groups of researchers have recognized the importance of individualizing diet programs for weight loss and maintenance. Kayman, Bruvold and Stern (1990), found that weight loss maintainers had developed individual strategies to control their own weight. Besides eating less, the maintainers were more aware of the types and quantities of foods they were eating and avoided fats and sugars. After studying overweight subjects' responses to a variety of weight loss programs, Kalodner and De Lucia (1991), concluded that individualizing therapy was an important requisite of weight loss programs. Brownell and

Wadden's (1991), theoretical treatise and Fisher's (1983) review articles both recommend that all weight loss programs be individualized.

The results from this study found only five gender differences with relation to weight loss maintenance. Women were more likely than men to have volunteered for this study. Women were more likely than men to have reached their maximum weight before the age of thirty. Women were more likely than men to describe their meal schedule. Men were more likely than women to eat everything they were served and women were more likely than men to have changed their tendency to eat everything served. Men were as likely as women to mention all other categories of eating patterns. Several authors have suggested that dieting has become the norm for North American women but do not discuss this tendency for men (Chernin, 1981; Kristeller & Rodin, 1989; Mallick, 1981; Polivy & Herman, 1987; Rodin, Silberstein & Streigel-Moore, 1984). Perhaps the fact that most dieting research includes a larger proportion of women than men has led to the spurious notion that gender differences exist.

In regard to the popular debate of whether it is better to snack or to eliminate snacks, this research found both behaviors to be practiced. In fact, the themes of "individualized eating patterns" and "success does not mean perfection" suggests that successful dieters will eat in ways that work for them individually. Some may find that snacking does not affect their weight while others have to avoid snacks in order to maintain their weight losses. Hartz et al. (1979), found no differences in weight regain between those who who snacked and those who didn't snack. Kayman, Bruvold and Stern (1990), found that normal weight, weight loss maintainers and weight loss relapsers all snacked but that the relapsers ate

significantly more snacks than the other two groups. Finally, Leon and Chamberlain (1973), found that regainers ate higher caloric snacks in a greater variety of situations than maintainers. The act of snacking may be of less importance than the frequency of snacks and the foods consumed during snacking.

Finally, although these results must be viewed cautiously, of the 28 subjects (18 women and 10 men) who were asked, the majority did not give up drinking alcohol. In fact, most of them drank on a regular basis. No gender or age related differences related to alcohol consumption were found. Other researchers have investigated the alcohol intake of dieters and the conclusions remain equivocal. Hartz et al. (1979), found those who drank alcohol at dinner regained less weight than those who did not, a somewhat surprising discovery. Kayman, Bruvold and Stern's (1990), research found no differences in the alcohol consumption among those of normal weight, the weight loss maintainers and the weight loss relapsers. In contrast, Allan (1989) found that women did decrease their alcohol consumption in order to manage their weight. Indeed, it appears that successful dieters have individualized methods for maintaining their weight loss and that this individualization may extend to alcohol consumption for some.

In conclusion, current literature lends support for the research findings in the present study. Both the categories and subsequent fundamental themes that emerged were evident in other research studies. Thus this research supports and contributes to an understanding of the eating patterns successful dieters use to maintain their weight losses.

Limitations of the Study

As a result of conducting this piece of research, several limitations of the study became evident. This section will describe the limitations of: 1) utilizing retrospective data sets, and 2) this particular study.

Retrospective data is a valuable source of information but it does have its limitations. Although this section is not meant to be an exhaustive list of the shortcomings of retrospective data sets, several limitations, identified during this piece of research, will be described. First, because the people who are analyzing the data did not collect it, they cannot know how the collection process itself may have affected the data. Second, if the analyzers are unsure of the meaning of any statements, they are unable to ask the subjects for clarification or further description. Third, the analyzers cannot validate their research findings with the subjects. Finally, because the data is retrospective, there is no way of knowing if the results would be the same if the data had been collected today. The effects of variables such as public policy and mass media education on the subjects' responses is not known. Although retrospective data sets have their limitations, they do not render the data useless. As long as the shortcomiongs are recognized, these data sets can contribute a large amount of information to any field.

There are specific limitations in relation to this particular thesis that are important to recognize. First, this thesis studied only successful dieters and therefore no statements can be made regarding whether unsuccessful dieters, normal weight or overweight individuals have eating patterns similar to successful dieters.

Second, because there were significantly fewer men than women were under the age of forty years, the results must be viewed cautiously with this group of men. Third, the analysis of each question contained a large number of miscellaneous responses. Placing them in a miscellaneous category may suggest that they are not important. In fact, the large number of miscellaneous comments adds strength to the theme of individual eating patterns.

Fourth, the fact that only eating patterns were examined narrows the significance of this study. This research contributes to an understanding of the eating patterns of successful dieters but does not describe any other components which might affect weight maintenance In conclusion, this study has uncovered only one piece of the puzzle with respect to what makes successful dieters successful; their eating patterns

Recommendations for Nursing Practice

Nurses are often called upon to advise and support clients in their attempts to lose and maintain weight losses. This research has several implications for the practice of nursing.

First, clients may be acutely aware of their own eating experience. Before giving any advise, nurses should assess their clients individually to see if this is the case. Do the clients have foods that they avoid, do they have problematic eating behaviors and do they have any strategies to control their eating? Once this data is known, nurses and clients can decide what the client's needs are.

Second, successful dieters may have developed individualized methods for controlling their weight. By assessing each client's indivual eating pattern, nurses will be in a better position to provide the assistance clients require. These clients

may need to improve their knowledge of the nutritional value of foods, they may need help fitting a nutritional program into their lifestyle or they may simply need support and encouragement to continue on with their present eating patterns.

Third, many clients may have realized that success does not mean perfection. Insightful nurses will not attempt to set up rigid dieting program for all clients. They will assess their clients individually, and collaboratively plan programs that will be within their clients' reach. Nurses can help clients set up realistic diet plans, keeping in mind that contingent restrictions work best for some clients while avoiding certain foods and beverages may be the key to success for others. A discussion of the experience of overeating with clients may help them both accept their digressions and devise contingency plans for overeating. In conclusion, there is no one magical method for weight control. Nurses can utilize this knowledge in diet counselling to help clients indivualize their diets to their lifestyles .

Recommendations for Nursing Research

As a result of this study, several recommendations for nursing research can be made. Are the eating patterns uncovered by this research unique to successful dieters or do others share them? A comparison of normal weight, successful and unsuccessful dieters' eating patterns would enhance the understanding of successful dieters eating patterns. Further to the suggestion of broadening the sample, do children who have successfully lost weight have similar eating patterns to adults?

Eating patterns is one factor which contributes to weight gain or loss, but there are others. An in depth study of a small number of successful dieters would allow a richer understanding of the weight maintenance process for the individual.

The Grounded theory methodology would appear particularly well suited to answer the broader research question, "What is the process of weight loss maintenance for successful dieters?"

Many studies have been undertaken to compare the effects of behavioral and cognitive treatments of obesity. This research indicates that a comparison of individualized programs may be beneficial in understanding weight loss maintenance programs. A research study of this type could either compare groups of individuals or follow the same individuals over time when they were on two or more maintenance plans.

Summary and Conclusions

Obesity is a major public health concern, affecting a large number of North American adults. A review of the literature related to successful weight loss and maintenance provided valuable information relating to this process but did not answer this researcher's question. This study was then undertaken in order to explore and describe the eating patterns successful dieters use to maintain their weight losses.

Content analysis of a retrospective data set from 68 successful dieters was conducted. Frequencies of responses and chi-square tests of association were performed on the categories that arose from the data and sample characteristics. Three fundamental themes: awareness of the eating experience, individualized eating patterns and success does not mean perfection arose from the analysis. Each theme aided in the understanding of weight loss maintenance.

Some successful dieters are aware of the eating experience. That is, they are cognizant of what they eat and can describe it to others. Their descriptions indicate continued use of the knowledge learned while dieting.

Some successful dieters have learned what eating patterns work for themselves personally. They have individualized habits which allow them to maintain their weight losses. They fit their eating patterns to their own lifestyles.

Some successful dieters recognize that success does not mean perfection. That is, they have learned that they can overeat or indulge at times and not regain all the weight back that they have lost. They may feel guilty for overeating but they do not let the guilt immobilize them. Some will even make contingency plans for overeating. In conclusion, successful dieters are aware of what they eat, they individualize their eating patterns and they do not strive to be "perfect" eaters.

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